



MESTNA OBČINA PTUJ



**MANAGEMENT PLAN
OF THE ARCHAEOLOGICAL PARK POETOVIO
-
PANORAMA ARCHAEOLOGICAL SITE**



Ptuj, december 2021

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1 INTRODUCTION

The Management Plan was prepared within the framework of the project TRANSFER (Integrated Management Models for Archaeological Parks), co-financed by the European transnational programme ADRION (Interreg V-B Adriatic-Ionian Programme) in cooperation with the Municipality of Ptuj, in accordance with the current Law on the Protection of Cultural Heritage RS ZVKDS -1. The purpose of the Management Plan is to ensure the protection and development measures and activities of the new archaeological park that will be developed on the site, and to determine the strategic and implementation directions for the comprehensive preservation of the monument.

The purpose of the Management Plan is to develop a long-term strategy for the management and maintenance of the Poetovio Archaeological Park. Based on the assessment of the cultural significance of the site and the threat analysis, guidelines for the protection and development of the cultural monument have been developed to enable its sustainable development. The plan includes starting points and strategies for the long-term management and maintenance of the site. Based on the analysis of the existing situation, strategic options for the development of the cultural monument are identified. They were transferred into a basic protection and development concept, which is the basis for the further definition of individual measures. The latter are defined in terms of content, time and cost.

In the Municipality of Ptuj, we want to unite the geographically scattered Roman archaeological heritage under one brand, the Archaeological Park Poetovio, which includes the following monuments and sites: Panorama, Roman Lapidarium, Povoden Museum and Orpheus Monument, 1st Mithraeum, 3rd Mithraeum, Roman furnace and Roman Road at Jože Potrč Hospital. In this document we limit ourselves to the area of Panorama, which is the largest and most complete site.

An integral part of the Management Plan is the Conservation Plan Ptuj - Archaeological Site Panorama for the spatial planning unit PA01 (EŠD: 9277), which defines the criteria for the placement and implementation of the planned interventions, especially in terms of purpose, function, location, size and shape of the interventions.

The management plan is adopted for a period of 5 years. It is designed as a flexible document. The selected measures will enable the achievement of the objectives and results. This allows for timely adaptation to new situations and changes in the site. Deviations from the plan, necessary changes and additions are reviewed annually by managers and supervisors and the document is adjusted as needed.

2 LEGAL BASIS

List of legal acts that determine the status of the monument

In the Decree on the Declaration of Monuments of Local Importance, the Panorama area is part of the Ptuj - Left Bank Archaeological Site (EŠD 9155). The new decree

for the exclusive Panorama site was never adopted, but the area is defined as the spatial planning unit Ptuj-Panorama (EUP PA01) in the municipal spatial plan.

Decree on the declaration of immovable cultural and historical monuments on the territory of the Municipality of Ptuj, Official Gazette of the Municipalities of Ormož and Ptuj, No. 35/89-181.

Official Gazette of the Municipality of Ptuj, No. 1/2008-2, 7/2009-61, 9/2010-51, 12/2010-86.

The legal basis of the proposed law is the Law on the Protection of Cultural Heritage (Official Gazette of RS, No. 16/08, 123/08, 8/11 - ORZVKD39, 90/12, 111/13, 32/16 and 21/18 - ZNOrg), which determines the content of the management plan of the monument or monument area and must be adopted by the authority that issued the law on the declaration of the monument.

The Law on the Protection of Cultural Heritage - ZVKD-1 refers to the management of monuments in Chapter 5 and establishes the management of monuments in six points in Article 59:

- (1) The owner or possessor must ensure the management of the monument in accordance with the law on proclamation directly or by transferring it to the administrator.
- (2) All monuments protected under international treaties to which the Republic of Slovenia is a signatory, as well as all monument areas, must have an administrator. The Act on the Proclamation of the Monument may provide for the administrator also for other monuments.
- (3) Pursuant to the Act on the Declaration of the Monument Area, the body that enacted the Act on the Declaration may itself manage the monument area in the management plan, establish a public body for this purpose, transfer the management to a public body established for the purpose of managing monuments and monument areas, or transfer the management to a natural or legal person on the basis of the provisions on public-private partnerships.
- (4) The management may be transferred to the administrator of the protected area if this is stipulated in the Act on the Protection of the Protected Area and if the administrator is professionally qualified for the management of the monument area.
- (5) The management of a monument or a monument area shall be carried out on the basis of a management plan.
- (6) If the operator invests its own funds in the restoration and maintenance of the monument and assumes other burdens and risks, the authority that issued the proclamation may enter into a management concession agreement with the operator for a period proportional to the operator's financial contributions and risks.

The management plan is defined in Article 60 of the Cultural Heritage Protection Act (ZVKD-1) in five main points:

- (1) The management plan is a document that sets out the strategy and implementation guidelines for the comprehensive conservation of a monument or monument area and how conservation will be carried out. A management plan shall be prepared for all monuments and monument areas that have a steward.
- (2) The management plan shall be prepared by the manager with the professional assistance from the Institute. The management plan shall be adopted by the body that issued the act declaring the monument.
- (3) The management plan shall contain at least:
 - an overview of the cultural values to be preserved and developed,
 - a vision for protection and development,
 - strategic and operational objectives of the management,
 - provisions on the administrative structure and measures for protection against natural and other catastrophic accidents,
 - a plan of activities with a financial framework, especially for ensuring accessibility and managing the visit,
 - indicators and method for monitoring implementation, and
 - the period of validity of the plan, the method for supplementing and amending the plan.
- (4) In the case of joint management of several monuments related territorially or substantively, a single management plan may be adopted for all monuments.
- (5) If the monument area overlaps with an area protected or safeguarded on the basis of nature conservation regulations, the management plan shall be adopted in agreement with the ministry responsible for nature conservation. The agency responsible for nature conservation shall participate in its preparation.

3 MANAGEMENT PLANS AND STRATEGIES

The management of the Archaeological Park Poetovio has not yet organised. However, the municipality of Ptuj has enacted several municipal laws for the protection of cultural heritage. The Panorama area is defined by decree as a cultural and historical monument and as a spatial planning unit in the Municipal Spatial Plan. The area was included in the contract on the design and cleaning of public areas in the Municipality of Ptuj.

According to the Law on the Protection of Cultural Heritage, management means: "the performance of tasks necessary to fulfil the purpose for which the thing was declared a monument, and includes, in particular, the management and organisation of maintenance, use, accessibility, presentation to the public and monitoring of its condition."

Cooperation and coordination between local stakeholders

Cooperation between local stakeholders is well developed in the formulation of policy and management of the park:

- Institute for the Protection of Slovenian Cultural Heritage, OE Maribor: preservation and protection of the monument, professional support for the correct presentation of the archaeological site;
- Provincial Museum Ptuj-Ormož: presentation of heritage, popularisation of movable cultural heritage in the field of archaeology;
- ZRC SAZU Institute of Archaeology: field research, study of archaeological material and exploration of the area;
- Public Institute for Tourism Ptuj: planning of integral cultural and tourist products, promotional activities, development of a boutique cultural and tourist destination;
- Scientific and Research Centre Bistra, Ptuj: connections with good practises abroad, professional support in the field of management/implementation of EU projects;
- Public Services Ptuj: maintenance of the park.

Public participation

The development of the management plan will involve the participation of professionals and the general public, through workshops, consultations, real-time communication with the public through social networks, and information on the websites of key stakeholders (municipality, museum, others). Collaboration with the community of the Panorama neighbourhood is already underway, but also with various associations (e.g., the Beekeeping Association), public and private entities.

Manager

The administrator of the archaeological park is the Municipality of Ptuj, represented by the Mayor, in cooperation with the Regional Museum of Ptuj - Ormož, represented by the Director.

The tasks of the administrator are:

- Implementation of the management plan.
- Elaboration of proposals for changes and additions to the Management Plan.
- Adopting annual work programmes and financial plans based on the Management Plan and implementing or ensuring the fulfilment of the tasks specified in the Plan.
- Seeks sources of funding for the park.
- Works with the Expert committee to achieve the purpose of protecting and preserving cultural heritage or the goals of developing archaeological parks.
- Adopts and implements annual work programmes.
- Prepares annual reports.

Expert Committee

To assist in the implementation of administrative tasks, the Mayor of the Municipality of Ptuj appoints a Committee of Experts, which is composed of:

- 1 member from ZVKDS OE Maribor
- 1 member Public Institute for Tourism Ptuj
- 1 member of PMPO
- 1 member of ZRC SAZU, Institute of Archaeology

Tasks of the expert committee:

- Determination of the adequacy of the management plan according to the professional guidelines.
- Discussing issues related to the park's professional work.
- Propose solutions based on professional knowledge.

SWOT analysis of the management plan and strategies

OPPORTUNITIES	WEAKNESSES
<ul style="list-style-type: none">- Involve the public in the development of the management plan.- Sharing of best practices and knowledge.- Professional and financial support.- Placement of Ptuj as a cultural and tourist destination in Slovenia and abroad.	<ul style="list-style-type: none">- There is no management plan.- Inadequate presentation of archaeological heritage.- No investments.- No marketing products.- Spatial disconnection from other AP areas.
ADVANTAGES	DANGERS
<ul style="list-style-type: none">- Near the old town, the castle and the residential and educational district of the city.- Popular location for walks/recreation with great views.- Ptuj is already a well-known tourist destination.- Tourist offer in the city is well developed (events, festivals, artistic activities, public tourism institute, local suppliers, souvenirs).- The possibility of expanding and upgrading the tourist offer.	<ul style="list-style-type: none">- Conflict of interest.- Lack of financial resources.- No continuity in administration.

4 DESCRIPTION OF THE MONUMENT

The oldest settlement in Ptuj dates back to the early Eneolithic period. In the 1st century BC there were several small Celtic settlements belonging to the community of the Taurisci tribe. The main settlement probably already bore the name Poetovio. Before the Roman occupation, the territory of Ptuj belonged to the Kingdom of Noricum (regnum Noricum).

The Roman town of Poetovio was located in the province of Upper Pannonia and is situated under a large part of the present-day town of Ptuj. At the beginning of the 1st century AD a military fort was built here, which was first the seat of the Eighth Augustan Legion and later of the Thirteenth Double Legion. After the abandonment of the fort, Colonia Ulpia Traiana Poetovio was founded between 98 and 102, which quickly developed into an important administrative centre and housed the Archives and registry office for Upper Pannonia (tabularium), the Central office for the inheritance tax in the provinces of Upper and Lower Pannonia (XX hereditatum ultrarumque Pannoniarum) and the Central offices of the Illyrian customs. At the beginning of the 4th century Poetovio was incorporated into the province of Noricum Mediterraneum. It was abandoned before the middle of the 5th century, as were most of the towns in the exposed areas near the main roads that crossed the eastern edge of the Alps.

The importance of Poetovio lay in its strategic position at the crossing of the river. It was located at the crossroads of the Amber Road, which connected the northern Adriatic Sea and the Baltic Sea, as well as the water and land routes along the Drava River. The settlement extended for about 3.5 km along the main road and on both banks of the river. Throughout the Roman period, the town kept its original, sprawling shape with an irregular perimeter and several quarters. The most important parts are located near the bridge on the left bank of the Drava River, in the Vičava district and on Panorama Hill. Here are located a forum, various public buildings and houses of the city elite.

Many remains of Roman Poetovio have been preserved and presented and are now united in the Archaeological Park Poetovio (Panorama, Roman Lapidarium, Povoden Museum and Orpheus Monument, 1st Mithraeum, 3rd Mithraeum, Roman furnace and Roman road at the Hospital of Jože Potrč). The Panorama area is highlighted below.



SLIKA 1

Figure 1: View of Ptuj and the area of the Panorama archaeological site, which is located just to the left of the Ptuj Castle and the old city centre of Ptuj. In the background, the new Ptuj with the settlement units Bratov Reš, Štuki and Rabelčja vas stretches under the hills of Mestni vrh; behind them are the hills of Slovenske gorice. Aerial view from the southwest. (Photo: Ivan Tušek, 1998; source: Lubšina Tušek, 2015)

Panorama area

Panorama includes the elongated foothills of Slovenske gorice (267 m above sea level). It extends in a northwest-southeast direction and includes two rounded peaks. Together with the neighbouring Castle Hill (Ptuj Castle), it rises above the historical crossing over the Drava River. It offers a magnificent view of the mediaeval castle and town of Ptuj, the river and its plain, and the eastern edge of the Alps in the distance. It is located in the immediate vicinity of the mediaeval town, but already on the edge of the modern settlement.

Accidental finds and minor excavations have brought to light the existence of significant archaeological remains in Panorama. After World War II, a water cistern was built on the top of the hill and an orchard was created, which included earthworks such as deep planting pits and terraces; these works apparently completely destroyed the Roman layers.

Less than a decade ago, the orchard was removed and the hill was reopened to the public. A meadow with individual trees now spreads out on the hill.

Archaeological findings prove that Panorama was one of the central districts of Poetovio. Its sunny and elevated position directly above the city centre with the Forum, overlooking the river and the main street, made it attractive for settlement.

During the Roman period, the gentle southeastern and eastern slopes of Panorama were built up. On the northern slope there was a cemetery. Geophysical surveys have revealed an urban structure with a rectangular grid of streets and residential plots. Archaeological monuments are visible only on georadar images.

The archaeological monuments in Panorama are covered with soil and are not visible on the surface. The newly constructed paths follow the course of the Roman streets. Marble copies of stone monuments and information boards give the visitor a first impression of the hidden archaeological heritage.



Figure 2 and 3: Ptuj - Panorama archaeological site, EŠD 9277. Outline of the monument area on the Franciscan cadastre and outline of the monument area in the Proposal for declaration as a cultural monument of national importance on the digital cadastral plan (2010) (source: Lubšina Tušek 2015)



Figure 4: Panorama. Areas of the Roman city (1-5) and the network of walls (after: Horvat et al. 2020, p.12).

4.1 DESCRIPTION OF THE MONUMENT

The Panorama and Grajski Hill sites represent the visual focal point of the extensive area. Only in this way it was possible to clearly determine a favourable river crossing. Historically, one of the central traffic and trade junctions in the wider area of the southeastern Alps emerged here from the early Aeneolithic. At this point the land routes meet the river route of the Drava. The historical traces of the route reach from the Amber Route via the ancient state road Celeia - Poetovio with a branch in the north to Savaria and Carnuntum, respectively in the east to Sirmium, up to the High Middle Ages. Due to its location and importance, especially in Roman times, it is one of the most important geopolitical and strategic points between the Italian, Noricum, Pannonian and Balkan areas.

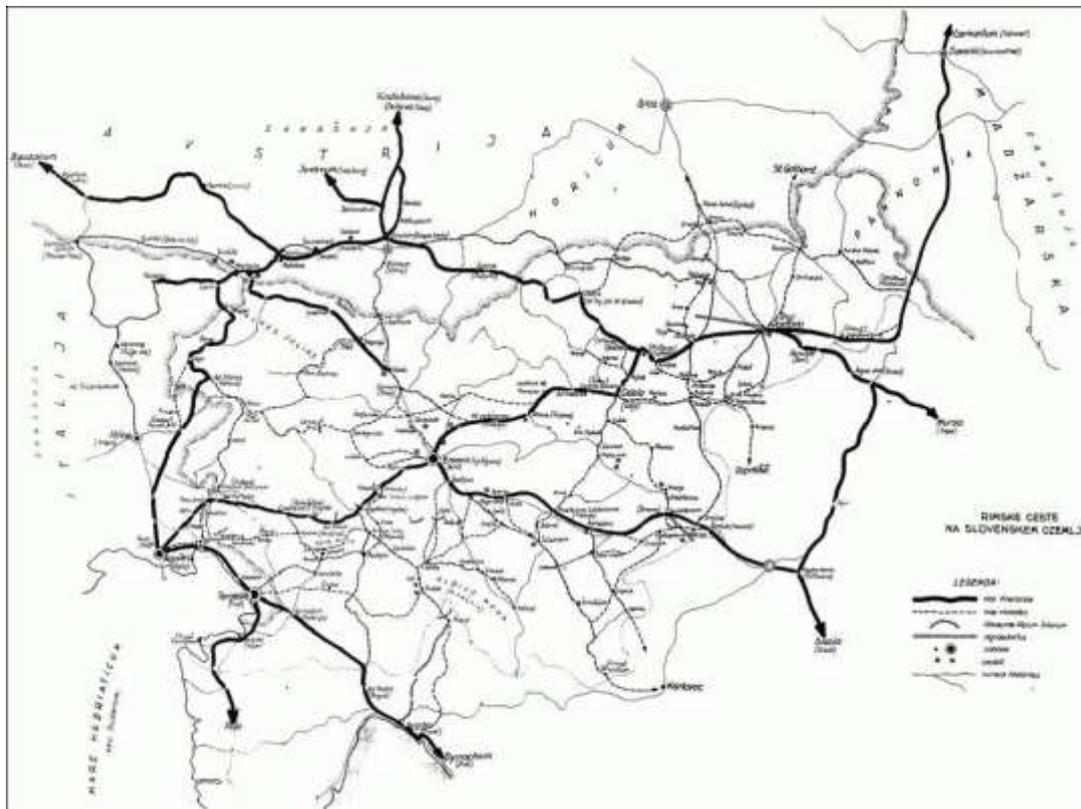


Figure 5: Roman roads in Slovenia (source: http://www.gis.si/egw/ZSS_T02_P06/index.html, accessed 26 September 2018)

The outline of the Roman Panorama is based on the image of the geophysical surveys, supplemented by data from a few systematic surveys of older date and by chance finds. It is inadequate in many respects because of the lack of modern research on the chronology and stratigraphy of the site.



Figure 6 and 7: Panorama area (source: http://www.ptuj.si/park_panorama, accessed 1 October 2018)

Settlement

1. Prehistory

The only reliably pre-Roman object from Panorama is a Late La Tène bracelet, probably from the northeast slope (Area 4, Fig. 4). The finds of Late Tène pottery mentioned in the literature seem to have been misidentified. For the time being, there is no real evidence for a prehistoric settlement.

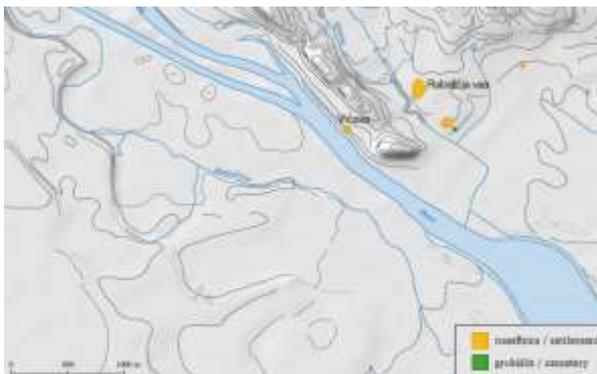


Figure 8: The settlement of Ptuj at the transition between the Middle and the Late Bronze Age: 14th-12th centuries BC.

Figure 9: The settlement of Ptuj in the Late Bronze Age: 11th - 9th centuries BC.

2. Beginning of the settlement

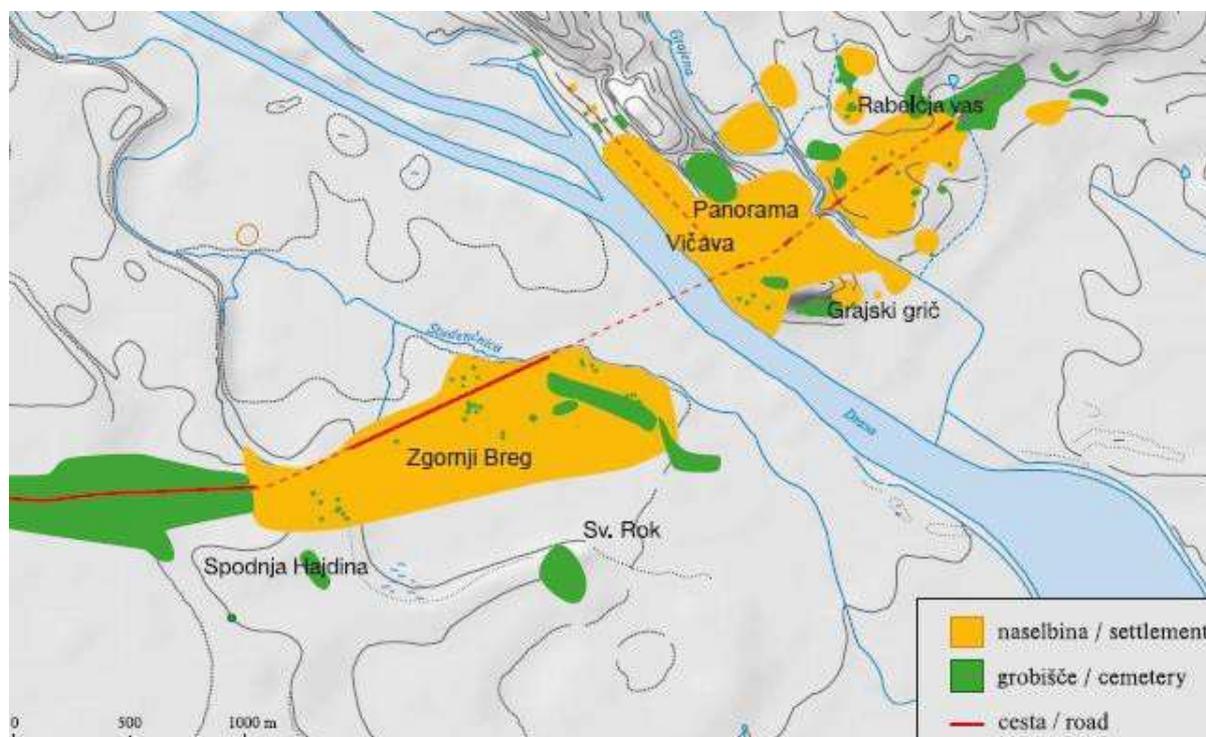


Figure 10: The largest extent of Poetovio with cemeteries (2nd century AD)

The oldest finds from Panorama date back to the 1st century AD and can be associated with the army (bricks with the stamps of the 13th legion, part of the helmet, falera, belt buckle). In 2020, traces of two phases of a Roman military camp were found from the middle and second half of the 1st cent. AD. The first phase was built with a combination of wooden palisade and earthen wall. Soon, before the end of the 1st century, the palisade was replaced by a stone wall. In the 3rd century, beyond the walls, there was a workshop for bone products, and in the 4th century, a metallurgical workshop. In the excavation field we also found parts of the stone equipment of the early Christian church from the end of the 4th century, which stood in the immediate vicinity. Perhaps we can also relate the first construction phase of some buildings, which can be seen on GPR images, to the military. Buildings X, XI and XII in the middle part of the southeast slope (areas 2/5-7) resemble military barracks in shape and ground plan.

3. Urban layout

Panorama was probably built in the 2nd century, probably in the first half, shortly after the founding of the colony, according to a unified plan. The greatest development is recorded in the 2nd and 3rd centuries.

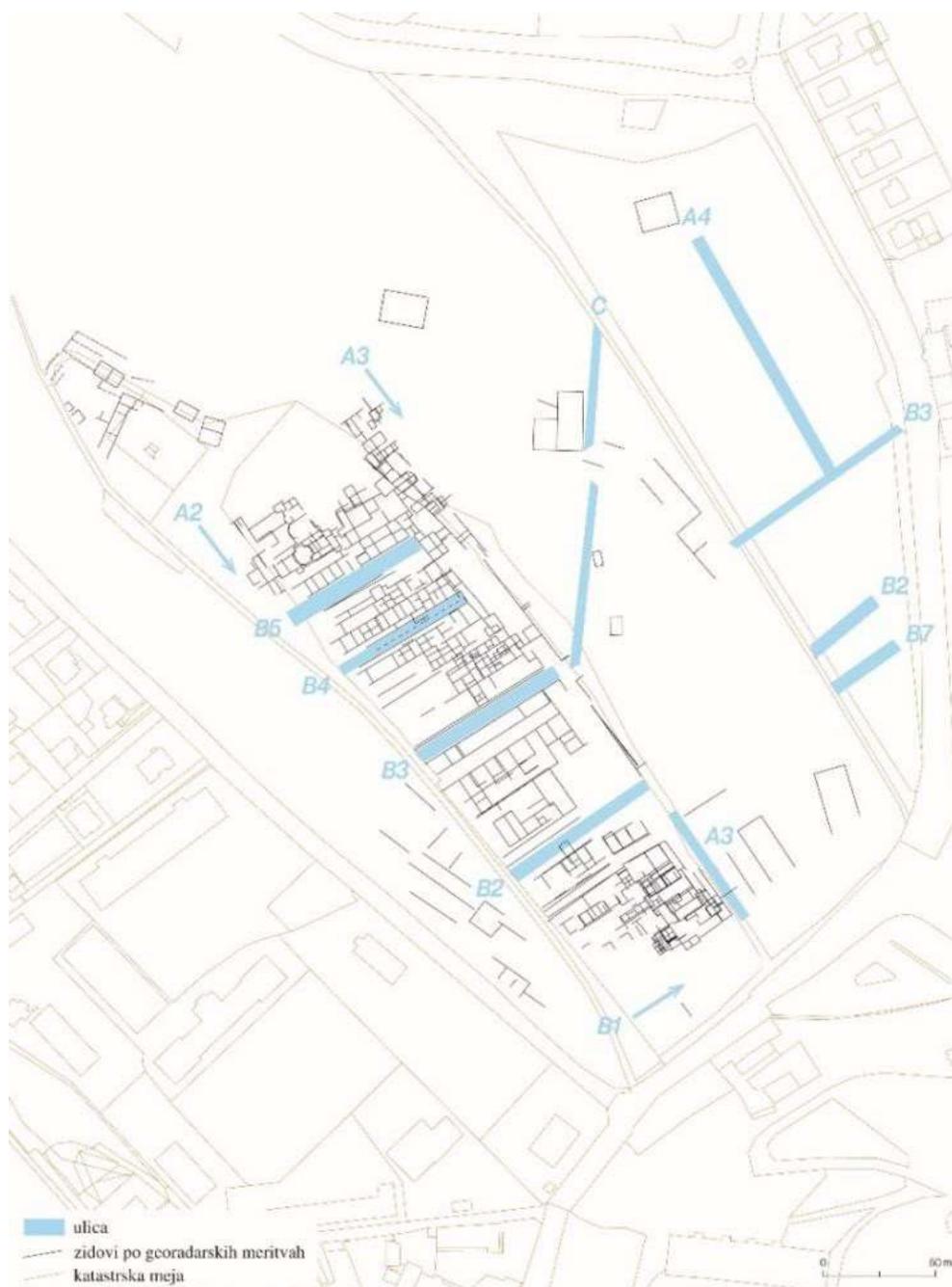


Figure 12: Panorama. The network of ancient streets/paths (A, B, C) and the network of walls (after: Horvat et al. 2020, p. 13).

Main road

The main road led over the pass between Panorama and Grajski grič, which used to cross the bridge over the Drava and the city centre with the forum (probably on the Vičava) and descended behind the saddle towards the Grajena, leading to the artisanal part of Poetovio in today's Rabelčja vas. The Roman road probably lies mostly under the present road. The finding of a part of a life-size bronze statue near the highest point of the road indicates the central importance of the road.



Figure 13: The course of the Roman road in the saddle between Panorama and Grajski grič: embankment of the road (N9-10); and the nearest excavated sections (N11-12).

South-Eastern Slope (Zone 2/1-7)



Figure 14: Zones 2/4 to 2/7. Interpretation of GPR measurement at depths of 44-63 cm.

Figure 15: Areas 2/4 to 2/7. Interpretation of GPR measurement at depths of 61-80 cm.



Figure 16: Zones 2/4 to 2/7. Interpretation of GPR measurement at depths of 96-115 cm.

Figure 17: Areas 2/4 to 2/7. Interpretation of GPR measurement from all depths together.

The building follows the direction of the slope. It is crossed by the streets B2-B6, which run at an angle of 60° to the north, dividing the space into insulae of different sizes - residential islands. Due to the slope of the terrain, each insula is located on its own terrace.

Along the northeastern edge of the slope, the long anomaly XXX is visible on the GPR images. Archaeological investigations in 2020 confirmed that it is a wall, with which in some places smaller buildings, which could be towers, are connected. Next to the walls of XXX, a relatively empty space can be seen, which may represent a road connection (A3) between the pass and the top of Panorama. The buildings directly adjacent to the main road (area 2/1) are not visible in the GPR image. From archaeological trenches we know that the area was densely built, however, the archaeological layers are very deep (more than 1.5 m below the surface).

In area 2/2 there was a large building I (about 48 × 37 m) with many rooms, which were rebuilt several times. Judging by the outline of the ground plan, it was a large domus - a large residential building; chronology and phases are unknown. Smaller buildings II-IV stood on other parts of the insula, characterised by rows of smaller rooms.

In area 2/3 there is a large open space, probably an L-shaped square (VI). Next to it is building V with several rows of rooms of the same size.

In area 2/4 is a building VII with a larger number of rooms of different sizes, possibly representing a domus (with garden?). Next to it is a small building IX.

Almost half of the insula is occupied by an open space VIII (garden or square).

Areas 2/5, 2/6 and the southern part of 2/7 are all covered with long and narrow buildings X, XI, XII and XIII, which have a very similar ground plan. Buildings X and XI were originally more than 60 m long and divided longitudinally into two parts, each of which consists of a row of small rooms preceded by a corridor or portico - a colonnade. In the northeast, each row ends with larger rooms without an accompanying corridor. The buildings XII and XIII seem to have been designed as a whole, but only as a half compared to buildings X and XI. The streets between the buildings were paved with sand (B6) or with stones (B5) and had drainage channels. They were bordered by walls on the northeast side, so that the buildings X- XIII at one point represented a unified and relatively closed complex of buildings.

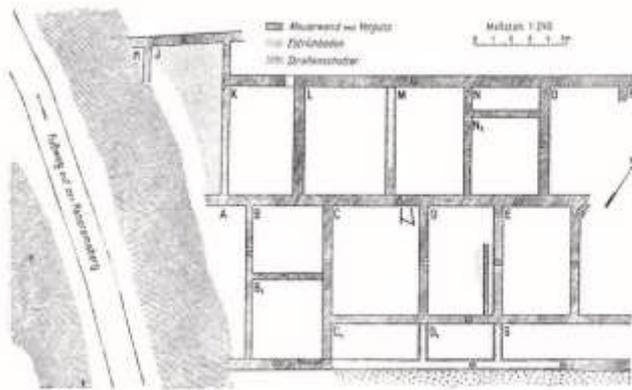


Figure 18: Excavation plan in 1911 in the south-western part of building X (or XI) - area 2/5 (or 2/6). According to Abramić 1914, 91-92, fig. 68.

Without more detailed investigations, the understanding of the buildings X- XIII remains uncertain. On the one hand, long, narrow, and longitudinally divided buildings with rows of small rooms and a large room at the end are typical of military barracks. On the other hand, rows of small rooms of equal size along streets are typical of tabernae in urban centers (e.g., Rome, Pompeii). Closed complexes of small rooms may have storage functions in addition to trade (e.g., Ostia).

The building constructions visible on the GPR image show that the function of buildings X to XIII and the individual rooms within them have changed over time. During excavations in 1911, the remains of a sacred place were discovered in two rooms, probably in the southwestern part of building X - a ritual or religious room from the 3rd century with relief panels of the Danubian Horsemen cult and with fragments of representations and dedications to various other deities (Liber, Silvanus or Bacchus, Asclepius and Hygieia, Nutrices).

On the upper part of the hill there is a complex of walls, possibly representing a building XIV. The circular and semicircular rooms probably belong to the first phase of construction. They were later rebuilt, but further up in other places semicircular rooms reappear. Semi-circular shapes suggest thermal baths. In 1913 Saria discovered a part of the peristyle in the area of the building XIV. We assume that the building XIV is either a bath complex or a large domus, including baths and a peristyle. In the immediate vicinity, Saria excavated part of the baths (building XVI) from the 3rd century, which may belong to the same complex.

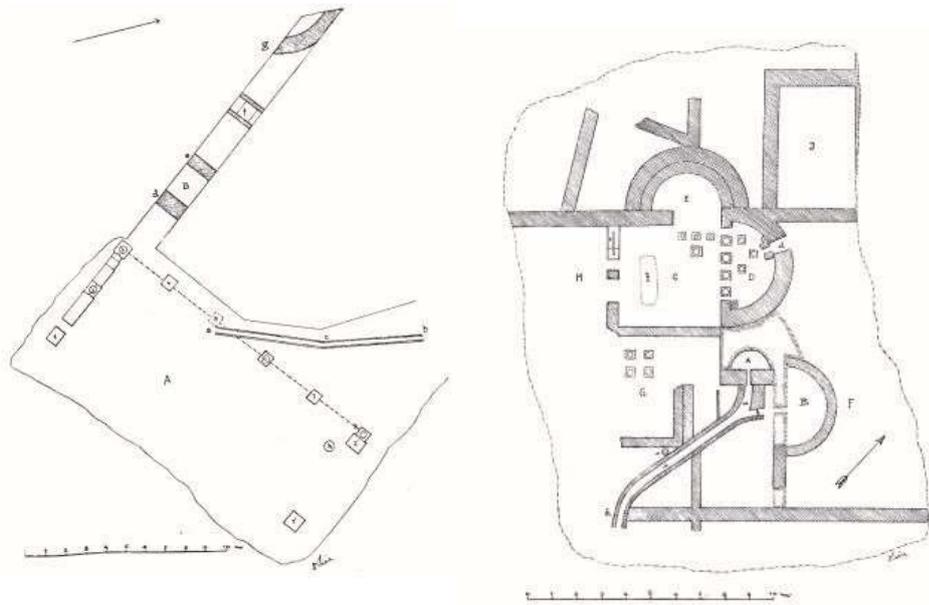


Figure 19: Plan of excavations of the peristyle in 1913 - building XIV. According to Saria 1922, 198, fig. 7.

Figure 20: Plan of excavations of the baths in 1913 - building XVI. According to Saria 1922, 196, fig. 6.

East of the building XIV stands the building XV, which is very well visible on the georadar image.

The northern part of Area 2 was also built on, but the buildings are not clearly visible on the GPR image, and their relationship to the alleged wall of XXX is not clear. In this area, fragments of stone decorations and parts of mosaics were found by chance, testifying to an early Christian church, which is not visible on the GPR image.



Figure 21: Zones 2/4 to 2/7. Alleged location of excavation fields from 1911 and 1913. GPR measurements, profiles at 0.5 m (43-49 cm deep) and at 1 m.
 Figure 22: Areas 2/4 to 2/7. Georadar interpretation at depths of 61-80 cm.

Summit of the hill (area 2/8)



Figure 23: Area 2/8. Research sites and settlement remains (according to resistivity measurements; according to the documentation of ZVKDS OE Maribor; after Pečovnik, Rupnik 2017a,b).
 Figure 24: Area 2/8. Reconstruction of the location of the building XVIIa. (Ground plan of the building according to Lubšina Tušek 2015, fig. 47).

The highest peak of the Panorama had buildings facing southwest, with a deviation of 20° from the north direction - thus quite different from the buildings on the southeast slope.

The large building XVIIb, whose exact location is not known and which has been only partially explored, had a strong foundation (60 to 90 cm wide) and several rooms. It was decorated with frescoes, at least one of the rooms was heated with a hypocaust.

A large building XVIIa with a central square room surrounded by three corridors was also located on top. The outer sides measured 30 m, and the foundations were about 1 m wide. There is also a possibility that buildings XVIIa and XVIIb are parts of the same structure. In 1948, researchers identified in building XVIIa a late Roman fortress built on the ruins of an older building (XVIIb). The late Roman watchtowers in Pannonia differ from those in Panorama. Judging from the shape of the architecture and from the finds of votive inscriptions and small artefacts, they could rather be the remains of a sanctuary of the ambulatory type. Two damaged votive inscriptions from the ruins of the XVIIb building, as well as an altar dedicated to Jupiter and lead votive figures found nearby, speak to the cultic character of the buildings at the summit of Panorama.

Based on geophysical surveys, we assume that there were four smaller buildings (XVIII, XIX, XXI, XXII) in the area of the summit. The building XVIII housed a foundry workshop. Pottery kilns discovered on the western edge of the summit also indicate craft activities.

The wall XX, which is about 90 cm wide, runs along the northeastern edge of the summit and may be part of the presumed defensive wall of XXX.

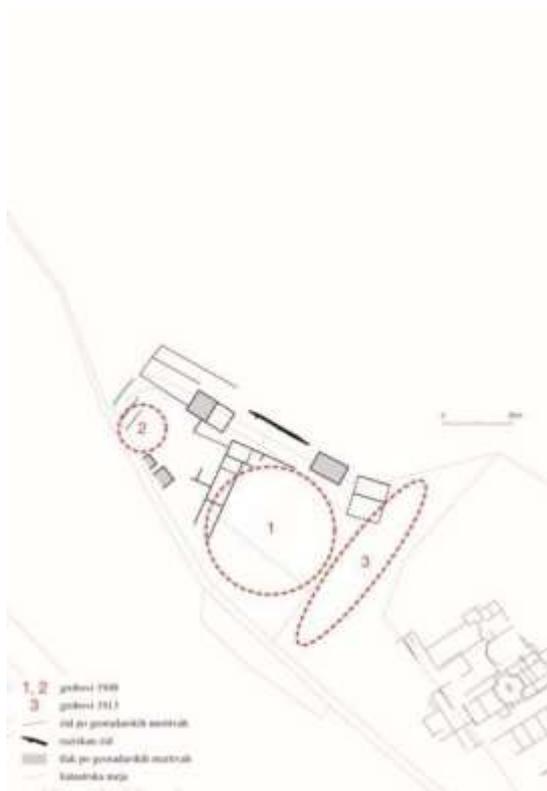
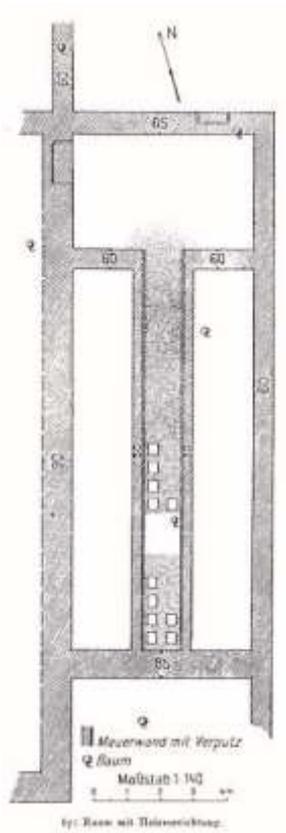


Figure 25: Panorama. Area 2/8. Building XVII b (after Abramić 1914, fig. 67).
 Figure 26: Area 2/8. Approximate locations of groups of graves.

Northeast Slope and Foothills (Zones 3 and 4)

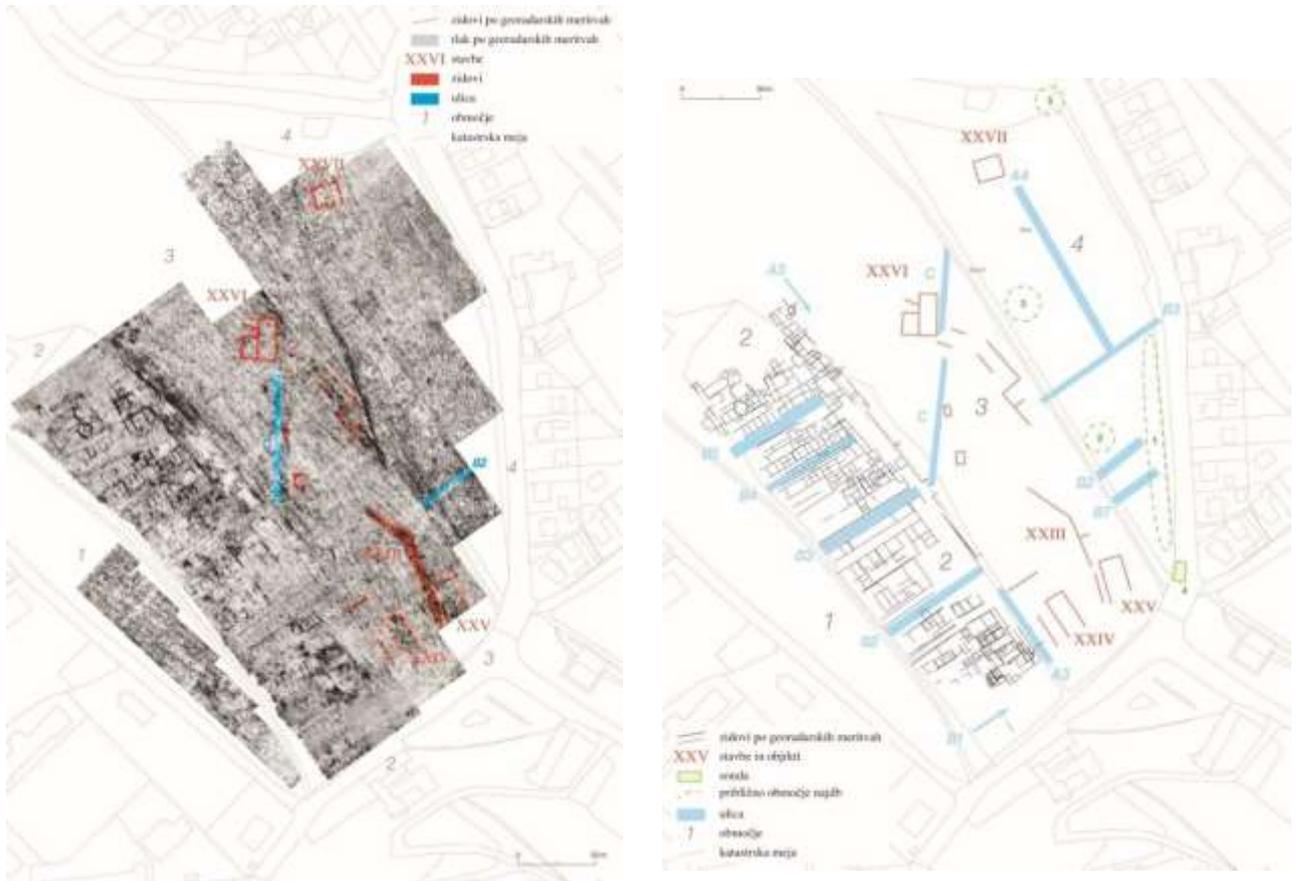


Figure 27: Areas 3 and 4. Buildings in the GPR measurement.

Figure 28: Areas 3 and 4. Interpretation of GPR measurement and location of finds.

Chance finds and minor investigations show that the steep northwestern slope and its foot were also built with high-grade constructions. Since the slope is heavily damaged by deep terraces, geophysical surveys were less informative here. A road network with a slightly different orientation than on the gentle southeast slope was noted at the base, and some larger buildings are suspected (XXIV-XXVII). The large anomaly XXIII cannot be interpreted without archaeological excavation.

Southwest slope (Zone 1)

A GPR image of the steep southwest slope shows anomalies that could represent individual walls and building XXIX. Due to the steepness, this part was most likely less densely built.

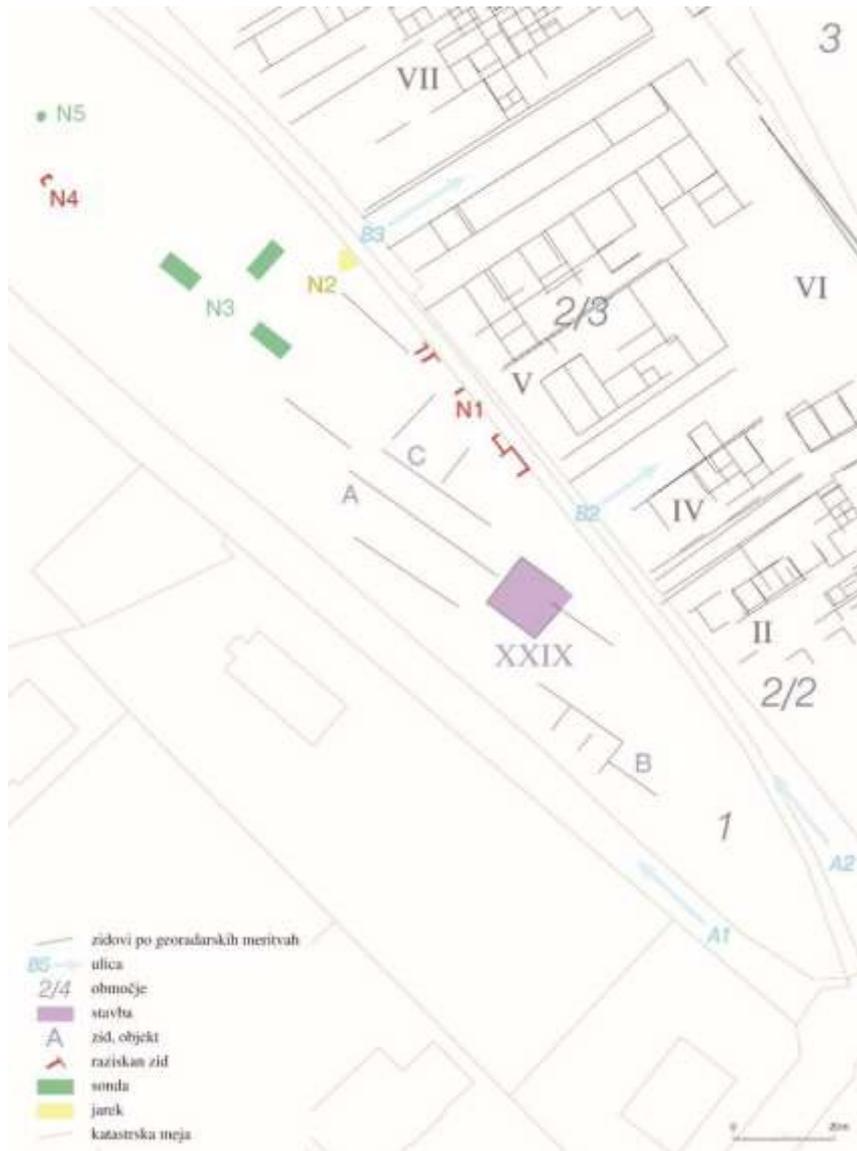


Figure 29: Area 1, Building XXIX and walls/objects (A-C). Interpretation of GPR images (combined images from all depths: from 115 to 44 cm), excavated walls and finds from the south-western slope.

Aqueduct (Zone 5)



Figure 30: Area 5. Resistance measurement results (after Mušič 2015, fig. 45).

Figure 31: Area 5.

The aqueduct ran along the Grajena valley and reached the northern slopes of Panorama at an altitude of about 245 metres above sea level, where it seems to have ended with the larger building XXVIII. It is not clear how the water was conveyed. The thermal baths (building XVI) were located about 10 m higher.

4. Functions of the individual buildings and other facilities

The geographical location of Panorama suggests that it was one of the central areas of Poetovio.

The area next to the road over the saddle was certainly of primary importance, but we have very little information about it. The road network was oriented to the road and the nature of the terrain.

The squares VI and VIII were probably areas of public importance.

In Panorama are concentrated the findings of votive stones for different deities. Most of them are dedicated to Jupiter, the Nutrices and the Danube Horsemen. Panorama is thus one of the religious centres of Poetovio. A sanctuary, possibly dedicated to Jupiter, is thought to be on the top of Panorama, probably in building XVIIa.

Two rooms of building X, open to the square VIII, were dedicated in the 3rd century to the cult of the Danubian Horsemen and possibly to the worship of other deities. Somewhere on the southeastern slope one can also look for the sanctuary of the Nutrices, to which numerous dedicatory reliefs point.

The religious centre remained on Panorama until late antiquity, when an early Christian church was built near the summit.

The layout of the buildings X- XIII could date back to the 1st century and is related to the presence of the army (the shape of a barracks). Rows of smaller rooms next to the portico are also characteristic of tabernae - taverns. There was a closed complex with two streets and an entrance on the southwest side. It probably had a special function, perhaps related to the commercial or administrative functions of the city. It is very likely that the use and purpose of the buildings and individual rooms in this area changed over time.

Other, smaller or larger buildings with rooms lined up (II, III, IV, V, IX and XV) are most likely also related to crafts and trade, in some cases also to modest dwellings. The multi-room buildings I and VII can be identified as higher-order residential buildings.

Baths from the 3rd century were discovered near the summit (XVI). The baths were discovered in the 1st century, possibly part of a larger thermal complex or domus (XIV), which was already built in the first construction phase (in the 1st or beginning of the 2nd century).

5. The end of the settlement

The last reliably dated settlement find is the remains of a church from the beginning of the 5th century. After the buildings were abandoned, the cemetery extended to their area.

Since there were no modern excavations in the settlement, the end of the settlement can be assumed in the second quarter or in the middle of the 5th century, similar to most lowland settlements in the southeastern Alps.

After the Roman period Panorama was no longer inhabited. On the military maps of 1784-85, some buildings are marked on the top of the hill, but no visible traces of them remain.

Cemetery

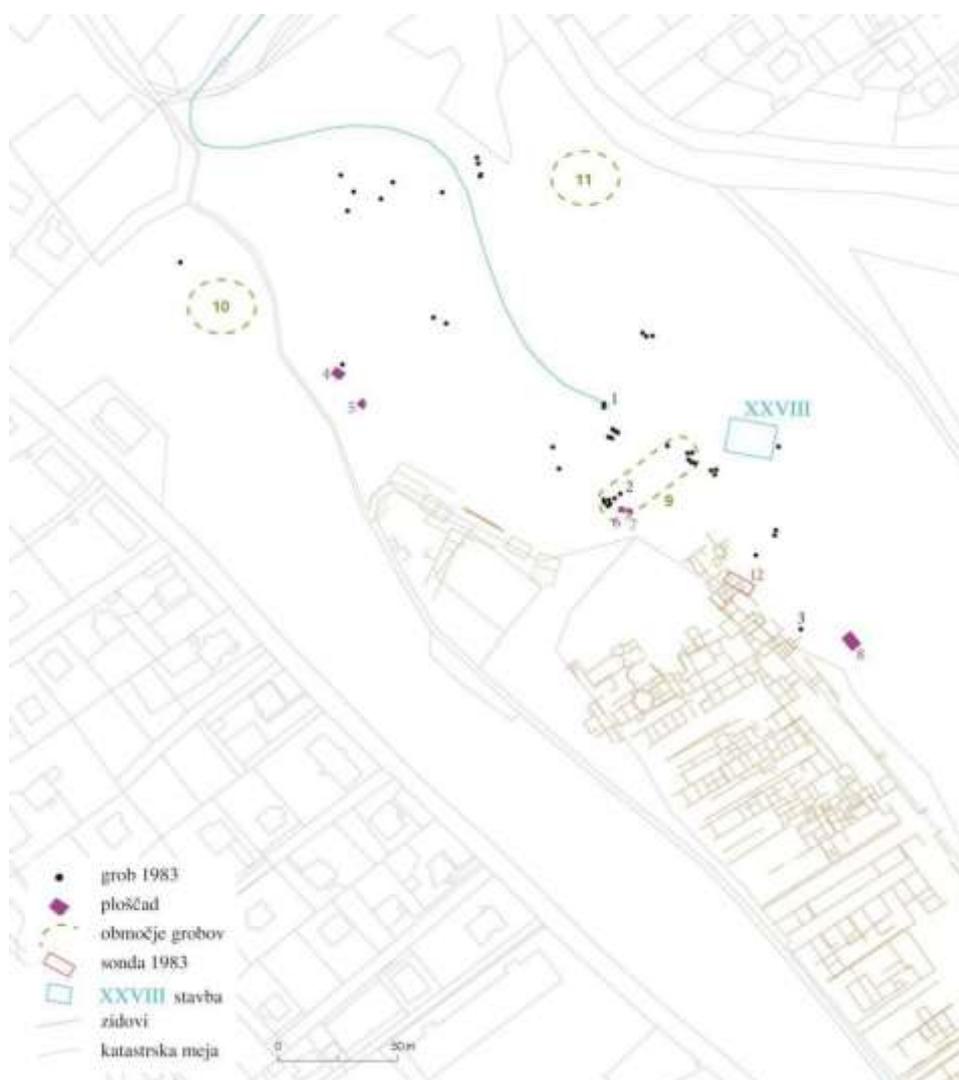


Figure 32: Areas 2/8 and 5. Cemetery, buildings and water supply.

The tombs were discovered on the lower, northwestern summit of the panorama and on the northern slopes. They also appear in the area of the abandoned settlement on the summit and were also discovered individually among the ruins of the buildings on the southeast slope. The burial ground has never been systematically explored, all data are accidental finds or finds discovered during archaeological investigations.

Judging by the gravestones in secondary position and single cremation graves near the summit (area 2/8), the burials on the outskirts of the settlement on Panorama began in the 3rd century at the latest. Fragments of stone ornaments, grave inscriptions and four stone platforms, which can be interpreted as foundations of graves, are the remains of the luxurious monuments of the urban elite.

Most of the tombs, which are inhumations, belong to the Late Roman period. The tombs have different orientations, they are located in simple caves or in tombs of different shapes, made of bricks and spolia. In the late period (perhaps as early as

the end of the 4th or 5th century), the graves spread to parts of the abandoned settlement. This is consistent with other late Roman burial sites in Poetovio and the wider Pannonian area.

4.2 LOCATION AND OWNERSHIP OF THE MONUMENT

According to the Law on the Protection of Cultural Heritage, management means: "the performance of the tasks necessary to fulfil the purpose for which the thing has been declared a monument, and includes, above all, the management and organisation of its maintenance, use, accessibility, presentation to the public and monitoring of its condition."

Name of the unit	Ptuj - Arheološko najdišče Panorama
No. (EŠD)	9277
Community	Ptuj
Cadastral community.	400
Lot No.	642, 643/1, 644, 645/1, 645/2, 645/3, 646/1, 646/2, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656/1, 3995, 3996
Owner	Mestna občina Ptuj
Manger	Mestna občina Ptuj
Conservation control	Zavod za varstvo kulturne dediščine, OE Maribor

5 VALUES AND SIGNIFICANCE OF THE AREA

5.1 CULTURAL (HISTORICAL, AESTHETIC) SIGNIFICATION

Panorama represents one of the central parts of Poetovio, one of the three largest Roman cities in the Middle Danube area. It was an important administrative, commercial and production centre of the Roman Empire.

At the same time Panorama is the best preserved extensive part of a Roman town in Slovenia.

Panorama offers a multifaceted insight into the importance, functions and peculiarities of Poetovio:

1. Way of life in a Roman city, organisation of society, level of residential culture.
2. The level of technical culture (architecture, construction techniques, heating, water supply with associated facilities, baths, defensive installations).
3. Spiritual life (sanctuaries, early Christian church).
4. The functions of the city (administration, production, trade).
5. Historical development over four and a half centuries (from the 1st to the middle of the 5th century).
6. Characteristics that distinguish Poetovio from other cities of the Roman Empire:
 - a. Broader administrative functions (Illyrian customs),
 - b. Defensive structures (in early and late Roman period),
 - c. Local and regional characteristics (worship of the Nutrices and Jupiter Depulsor).

A monument preserved in its original environment allows the local population to get in touch with the past in their own living environment and encourages them to experience it as a quality and an asset.

It is perceived as a visible sign of the knowledge and efforts of past generations for the common good, which we still enjoy today. The monument in its original location allows for the multi-sensory and multi-faceted enjoyment of heritage, bringing the distant past closer and incorporating it as part of personal history and values. Roman culture represents the foundation of Western civilization. Its experience strengthens the awareness of common belonging to the European community, awakens pride in local heritage, and promotes understanding of differences. In the local community, it develops responsibility for the preservation and protection of heritage.

5.2 EDUCATIONAL MEANING

Due to its good preservation and complexity, the educational importance of the archaeological site of Panorama is exceptional and almost unused. Panorama is suitable to explain the structure of Roman society as an important civilizational precursor of modern European communities, which allows an understanding of the complex modern society and its mechanisms. The example of Panorama and its surroundings can be used to explain the social development of the city and the community over four centuries, as an indispensable part of a large, trans-regional (global by the standards of the time) political community. Because of Poetovio's integration into the larger European space, Panorama has an educational

significance for both the local population and foreign visitors to Ptuj. It provides the key to understanding the political-economic system of the Roman Empire through the interweaving of supra-regional and local influences, which are reflected in material remains together with archaeological findings, remains of rituals and religions. They allow visitors to formulate their own interpretation of contemporary phenomena of globalisation and the importance of preserving regional identity and specific (traditional) knowledge.

The confrontation with centuries of complex social events in the Panorama area and Poetovio as a whole, in which different ethnic communities with different cultural lives (including different religious beliefs) participated, is an important educational moment that encourages reflection on the role of individuals and our communities in today's global social events. The insight into a distant ancient society, which already has all the germs of a modern globalised society, promotes tolerance towards others and a healthy attitude towards one's own tradition and environment.

5.3 SYMBOLIC, IDENTITY AND IDENTIFICATION MEANING

The Roman architectural remains in Panorama are an example of complex urban planning from the time when Poetovio was one of the most important cities in Central Europe. Even in the Middle Ages, Ptuj was an important trading town, but its importance was far behind its Roman predecessor. In the second half of the 19th century, the economic decline of Ptuj began (in comparison with some other cities in the region), as the city failed to develop a more significant industry, which at that time was the basis of economic development throughout Europe. The reasons for this can be found in the fact that the construction of the Southern Railway, which connected Vienna with the port of Trieste in 1846, was avoided in Ptuj. As a result, the nearby towns of Maribor and Celje began to develop economically, which at that time experienced rapid urbanisation that Ptuj did not. Even the construction of the railroad line from Pragersko to Velika Kaniža in Hungary in 1860 could not change this trend, as the line was not as economically important as the southern railroad. After the Second World War, primacy as a regional industrial, administrative and educational centre in northeastern Slovenia belonged to Maribor, which increased the differences between the two cities.

Ptuj has long been striving to restore its own urban and social identity, which had largely disappeared in the second half of the 20th century. It had largely disappeared in the second half of the twentieth century. The archaeological heritage is the bearer of a fundamental spatial identity and a symbolic and identity support. The modern museum landscape design of Panorama as an urban centre of a Roman city of supra-regional importance can become a carrier of efforts to consolidate Ptuj as a historical, urban, identity and cultural centre of Spodnje Podravje.

5.4 TOURIST AND ECONOMIC MEANING

Cultural tourism is considered the fastest growing industry in Europe, developing to the advantage of cities with a rich cultural heritage. Modern tourism is based on regional features and boutique offers that give absolute priority to spatial

presentations and monuments preserved in the original territory. With its rich movable, immovable and intangible heritage, Ptuj has a great and almost completely untapped potential to develop cultural tourism into an important economic sector. However, as with all tourism, there is a great danger of overpopulation and over-adaptation to the global offer in Ptuj, which can very quickly lead to a derailment of the content, destruction of the heritage (mass visits) and thus the destruction of the regional characteristics that are the basis for boutique and elite tourism offers. In the form of an archaeological park, the landscape design of the panorama has great potential as a regional feature and all the possibilities for the development of an elite, small and at the same time complex cultural tourism destination. Together with the city centre of Ptuj, the castle and the Dominican monastery, with its culinary offer and exceptional natural environment, Panorama can be developed into a comprehensive attractive cultural and tourist product.

5.5 SCIENTIFIC MEANING

Colonia Ulpia Traiana Poetovio (modern Ptuj) was one of the most important Roman cities in the middle Danube region. It was the largest centre between Aquileia on the northern Adriatic and the capitals of the Roman provinces of Upper and Lower Pannonia, Carnuntum and Aquincum, which were located on the border along the Danube. The importance of Poetovio resulted from its convenient location at the crossing of the Drava River and on the so-called Amber Road, which connected the northern Adriatic region with the Baltic region. Mentions in ancient written sources, epigraphic monuments, as well as large-scale settlement remains and remains of material culture testify to the exceptional role of the town. Despite its favourable geographical position, no significant settlement developed on the territory of today's Ptuj before the arrival of the Romans. In the Roman period Poetovio gained exceptional importance in the wider region and in the Empire, mainly due to the strategic and political-economic decisions of the state leaders, who in the first century stationed a legion at the crossing over the Drava and between 98 and 102 founded the colony of Poetovio. In the 2nd and 3rd centuries, the central offices of the Illyrian customs, whose territory extended from the Black Sea to Bavaria, were located in the city, which allowed the accumulation of great wealth and, consequently, the rapid development of the city. The beginnings of the civil (non-military) city were connected with large infrastructure projects financed by the state (e.g. the construction of the forum or at least one of the administrative buildings in Trajan's time, the construction of the bridge over the Drava and the reconstruction of the road between Celeia and Poetovio in Hadrian's time).

Inscriptions on stone monuments testify that the population was mixed. There were many immigrants from Italy, such as merchant families, military men and veterans, but also many newcomers from the eastern provinces. What is surprising, however, is the relatively small number of Celtic natives. The autochthonous roots are evident in the worship of the Nutrices, goddesses of Celtic origin, whose cult is a peculiarity of Poetovio. From the 3rd century the seat of the bishop was in the town, with the most famous bishop Victorinus, a saint and teacher of the Catholic Church. At the beginning of the 4th century Poetovio was incorporated into the province of Noricum. At the beginning of the 5th century, a small force of

Foederates, Germanic soldiers, was stationed here. In the middle of the 5th century the town was abandoned.

Only the outskirts of Poetovio are relatively well known with craft workshops and cemeteries, while the centre of the city, which stretched along the bridge on the left bank of the Drava, along Vičava and Panorama, is much less explored. Here we can expect a forum, a city centre with administrative buildings, main sanctuaries and other public buildings, as well as residential buildings of the urban elite. While Vičava has been almost completely rebuilt in recent decades and the archaeological remains of many buildings have been removed, Panorama Hill represents the last large untouched area of the Roman city. Small-scale excavations have uncovered interesting archaeological remains here, including buildings with several rooms and votive monuments to various deities (Abramić 1914), thermal baths (Saria 1922), remains of the Nutrices sanctuary (Šašel Kos 1999), an early Christian church (Knific 1991), a water supply (Pahič, Šašel 1950), a burial site (Lubšina Tušek 2015), and walls with a tower (Horvat 2020).

In 2015, the municipality of Ptuj, which wants to establish an archaeological park in Panorama, commissioned extensive archaeological geophysical surveys. The results, which represent a turning point in the knowledge of the centre of Poetovio, revealed an urban layout with the course of streets and rectangular building plots (Mušič 2015). It seems that the development of this area was planned in a uniform way, probably at the foundation of the city at the beginning of the 2nd century. But only detailed archaeological investigations will be able to clarify the chronology and purpose of the buildings and construction phases. The archaeological remains of Panorama therefore represent a great potential for solving many fundamental questions related to the origin of the city, its development and importance in the region, and last but not least, its decline in Late Antiquity. Panorama offers the last great opportunity for Ptuj to exploit its immense archaeological potential and integrate it into accelerated economic and social development.

The Municipality of Ptuj financially supported archaeological research in Panorama in 2015 and within the three-year project *Colonia Ulpia Traiana Poetovio - the emergence and development of the city (2019-2022)*. The fieldwork consisted of detailed geophysical surveys (2019-2020) and excavations (2020). In 2022, small-scale materials and field documentation were evaluated. Traces of two phases of a Roman military camp from the middle and second half of the 1st century AD were identified.

Urban research in Poetovio offers the possibility to see how the different influences and phenomena that shaped the city are reflected in the architecture: what was the role of the immigrants from Italy, the local and Celtic traditions, what were the local peculiarities and what of them has been preserved until today, what was the town administration and the wider administrative functions, to what extent was Poetovio more cosmopolitan than today's Ptuj and what was the price for it, what were the strategic and defensive functions of the town in the local and wider environment. The data on the development of the city centre will enable easier comparison with other cities in Pannonia and Noricum and a better understanding of Poetovio's role in the hierarchy of Roman cities, thus determining its (undoubtedly important) role in shaping the common European heritage.

By discovering the chronology, function, and phases of individual buildings and the settlement as a whole, we will take a significant qualitative step in our knowledge of Poetovio's development and place it in a broader historical context. The

research results will increase the relevance of comparative studies on the wider Danubian region and enrich the general knowledge of the Roman period, providing a better understanding of the complex historical and cultural phenomenon of the Roman Empire.

6 ANALYSIS AND ASSESSMENT OF THE SITUATION

6.1 RESEARCH HISTORY

A comprehensive overview of the Panorama research was prepared by Marija Lubšina Tušek (Lubšina Tušek 2015). For the analysis, we also used the Basic topographic collection of Ptuj archaeological sites at the Institute of Archaeology ZRC SAZU.

Most of the archaeological data comes from accidental finds from the 19th and 20th centuries, from excavations and archaeological inspections. Systematic researches of Mihovil Abramić in 1911 (Abramić 1914) and Balduin Saria in 1913 (Saria 1922) are very important for the settlement. However, it was not until the geophysical surveys in 2007, 2012, and 2015 that we gained insight into the grid of the entire settlement (Mušič 2015). Most of what we know about the cemetery comes from the reports on the archaeological investigations by Ivan Tušek (Tušek 1983; documentation ZVKDS- OE Maribor).

The list of archaeological findings is presented in the form of a table. It is arranged chronologically. For each site, the year of discovery and the position is indicated.

History of research

Table 1: Chronological overview

Year	Area	Location accuracy	Type of discovery or research	Remains
1816	-	no	accidentally	grave
1840	-	no	accidentally	altar
1841	-	no	accidentally	altar
1877	-	no	accidentally	isolated finds
1894/95	2/8	no	accidentally	building remains
1900	2/1-3; 4	no	accidentally	building remains, grave
1907	1	approximately	trenching	isolated finds, building remains
1907	4	no	accidentally	building remains
1907	5	no	trenching	isolated finds
1911	2/5 (ali 2/6); 2/8	approximately	excavation	building remains
1913	2/6-8	approximately	trenching	building remains, graves
1915	5	approximately	accidentally	graves
1928	4	no	accidentally	building remains, altar
pred 1933	-	no	accidentally	isolated finds

1935/36	5	no	accidentally	graves
1936	2/7	no	accidentally	choir screen
1936/37	3?	no	accidentally	La Tène braset
1937	2/1-2	approximately	trenching	building remains, graves
1937	3?	no	accidentally	building remains
1937	5	no	accidentally	graves
1940	4	no	accidentally	isolated finds
1944/45	4	no	accidentally	building remains
1945	5	no	accidentally	altar
1948	2/8	approximately	trenching	building remains, graves
1950	5	yes	trenching, survey	aqueduct
1952	3	no	accidentally	building remains
1953	4	no	accidentally	road, building remains
1954	2	no	accidentally	isolated finds
1959	2/1; 3	yes	survey	building remains, road
1965	2/1-6; 3	no	survey	building remains
1966	2/1-6; 3	no	survey	building remains
1983	1; 2/1-3; 2/7-8; 3; 5	yes	survey	building remains, graves
1983	2/1; 3	yes	survey	building remains, road
1983	5	yes	trenching	aqueduct
1986	3, 5	no	accidentally	stone monuments
1986	4	yes	survey	building remains
1989	2/8	yes	accidentally	building remains
1996	3-4	yes	survey	building remains
2004	4	yes	survey	building remains
2007	2/1-3; 2/5-8; 3; 4	yes	geophysical survey	building remains
2009	3-4	approximately	destruction	isolated finds
2012	2/5-7	yes	geophysical survey	building remains
2015	1-5	yes	geophysical survey	building remains
2017	2, 3, 4	yes	survey	isolated finds
2017	2/8	yes	trenching	building remains
2020	2/7	yes	trenching	wall with tower

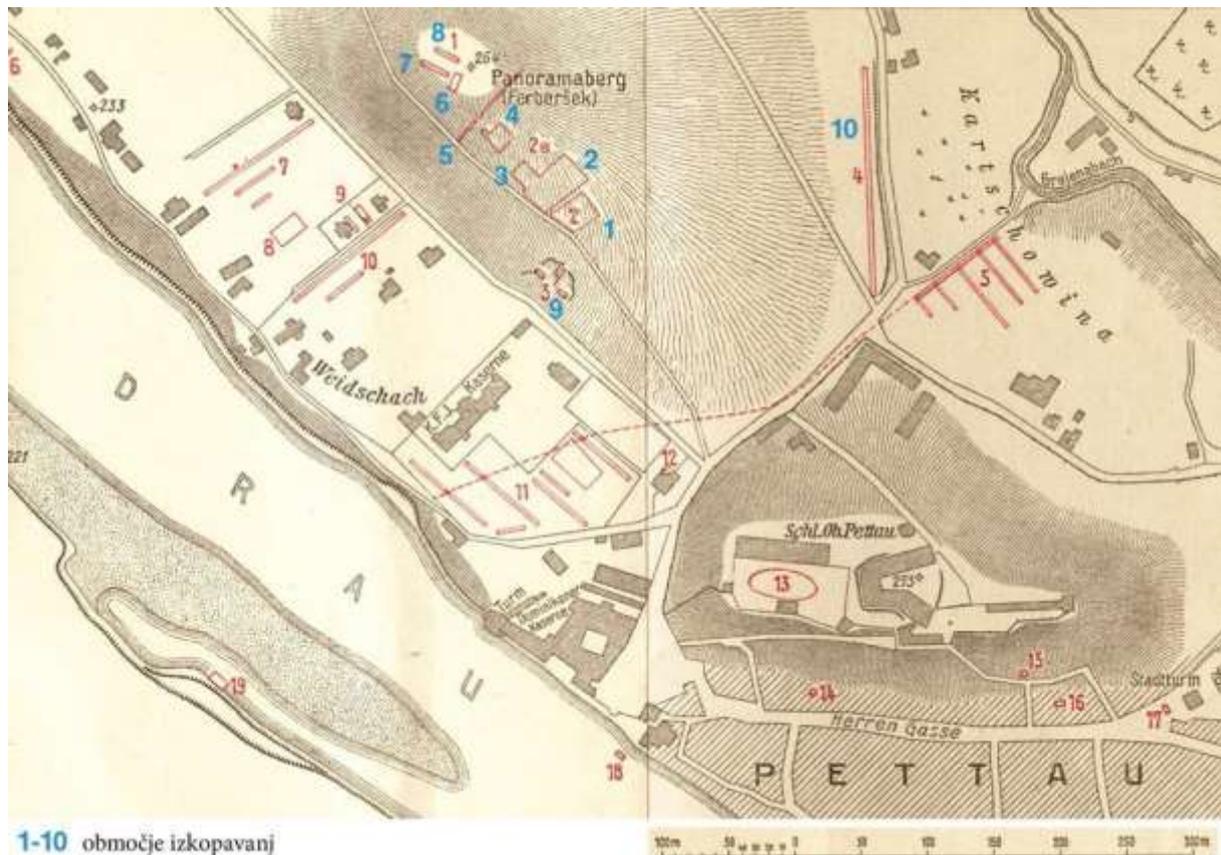


Figure 33: Panorama from Abramič's map of the archaeological sites of Ptuj. Areas of excavations and interpretation (1-10). (Base: Abramič 1914, fig. 136 = Saria 1922, map 1).

1 - excavation 1911 (building X); 2 - trenching 1913; 3 - thermal baths 1913; 4 - peristyle 1913; 5 - trench 1913; 6 - trenching 1911 (building XVIIb); 7-8 - trenching 1911; 9 - trenching 1907; 10 - excavation in 1907

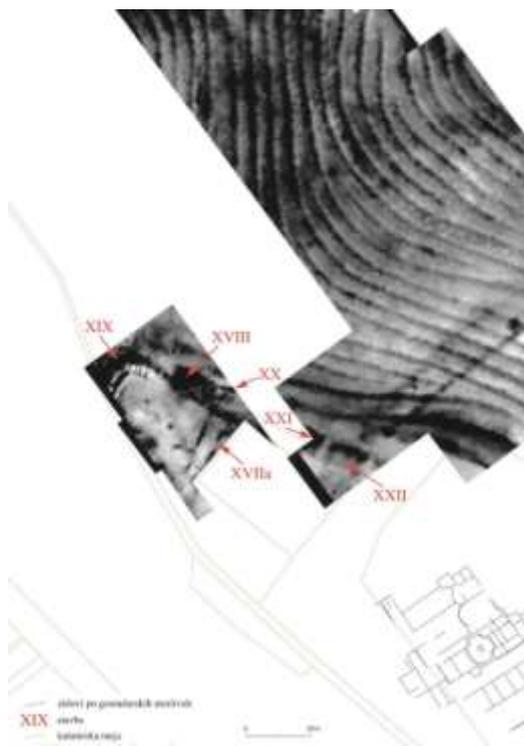


Figure 34: Panorama. Area 2/8. Results of resistivity measurements (after Mušič 2015, fig. 45).

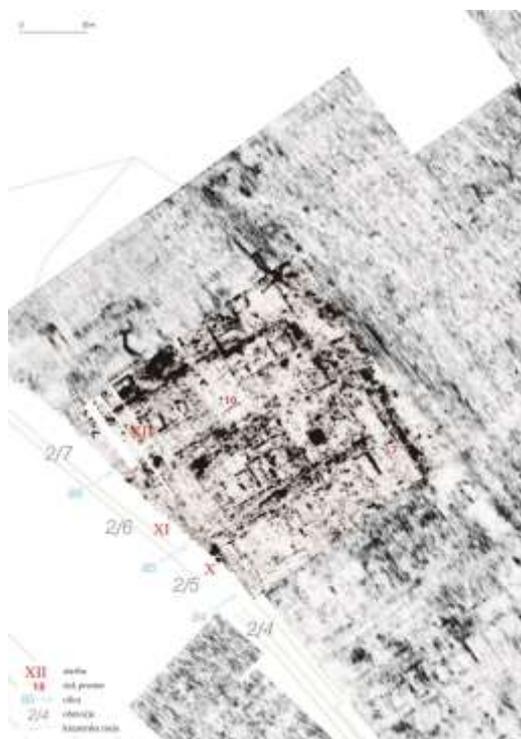


Figure 35: Panorama. Zones 2/5 to 2/7. Results of georadar measurements at depths of 27-33 cm. The distance between GPR profiles is 0.5 m.

6.2 ARCHAEOLOGICAL REMAINS ON PANORAMA¹

Methods

Of central importance for the evaluation of the archaeological traces were geophysical surveys (Mušič 2015), which provided insight into the entire grid of buildings precisely placed in space. Older archaeological data, usually inaccurate or very poorly located, are linked to the results of geophysics. Publication: Horvat, J., Mušič, B., Dolenc Vičič, A. in Ragolič, A., 2020, Arheološka najdišča Ptuja, Panorama, Opera Instituti Archaeologici Sloveniae 41. Ljubljana: ZRC SAZU, Inštitut za arheologijo.

Due to the shape of the hill and for better orientation, Panorama is divided into five zones (Fig. 4):

1. steep southwestern slope,
2. gentle southeastern slope with the highest peak,
3. steep northeastern slope,
4. northeastern foothills,
5. steep northern slope with a lower northern peak.

Based on the archaeological data, we divided the large and most favourable for the settlement zone 2 into eight parts: 2/1 to 2/8 (Fig. 4).

Geophysical research

The results of geophysical surveys conducted in 2007, 2012, and 2015, covering the entire Panorama area, provided a basic framework for understanding the settlement (full report: Mušič 2015).

The initial measurements in 2007 established the potential of the area and the importance of continuing the research.

In 2012, an area of slightly less than 1 ha was surveyed with georadar in zones 2/5, 2/6, and the southern part of zone 2/7 (Fig. 36). A smaller, high-resolution 400-MHz GPR antenna was used. The results showed a regular grid of well-preserved building foundations with parallel streets, terraced development, relative differences in the depth of the walls below the present surface and in the height of their preservation. Different phases of construction could also be identified in several places.

In 2015, extensive geophysical surveys were conducted over an area of approximately 17 ha on all accessible sites. Several investigation methods were used:

- georadar method (GSSI SIR3000, 400MHz antenna; Fig. 37);
- magnetic method (measurements of magnetic flux density of the total magnetic field, Geometrics G-858, gradient method; measurements of magnetic susceptibility, Kappameter KT -5; Fig. 38);
- resistivity method (Geoscan RM15, geoelectric mapping; Figs. 30 and 35).

¹ Horvat, J., Mušič, B., Dolenc Vičič, A. in Ragolič, A., 2020, Arheološka najdišča Ptuja, Panorama, Opera Instituti Archaeologici Sloveniae 41. Ljubljana: ZRC SAZU, Inštitut za arheologijo.



Figure 36: Panorama. A network of Roman walls, streets and paths. GPR image, combined images from all depths.



Figure 37: Panorama. A network of Roman walls, streets and paths. Image of research using the magnetic method.

The georadar and magnetic methods were preferred, and the results of the two aforementioned methods were supplemented by the resistivity method in places where additional data were needed or measurements with the georadar method were not possible due to the nature of the terrain (slopes with terraces). In the magnetic method results, the architectural remains were poorly visible due to the very small difference in magnetic susceptibility between the sandstone walls and their immediate surroundings. Another reason for the low reliability of the results of the magnetic method may be the covering of the walls with rubble. The distance between the georadar profiles was 1 m, and the georadar traces follow each other along the profiles at a distance of 4 cm. Due to the highly inhomogeneous nature of the subsurface, slightly adjusted filtering techniques were used in each case to create time slices of georadar reflections for selected depth intervals, depending on the specifics of the archaeological remains and the natural environment. The most informative depth intervals for each sector were used for the joint georadar image. At the same time, it should be emphasised that these sections do not contain all the archaeological information obtained by the ground penetrating radar method. In order to obtain a more complete insight into the results of the georadar survey, it was also necessary to consider series of horizontal sections for many depth intervals (cf. Figs. 11, 12, 14-17, and 39).



Figure 38: Panorama. Areas 2/1 to 2/3, buildings I-V and square VI. Interpretation of GPR measurements at a depth of 96-115 cm. (For areas 1 and 3, recordings from all depths are combined).

In 2015, depths up to a maximum of two metres below the present surface were explored. The results show a fairly clear picture of the organisation of the Roman city (Figs. 12 and 37). The ground plans of the buildings and the thicknesses and depths of the walls on which they stand, as well as the depths to which they extend, were determined. Judging from the uniform contrast of the georadar reflections, the buildings were built quite similarly. The same stone material was used, the walls were about 60 cm thick everywhere, only in some places they were thicker.

Minor differences in height (about 0.5 m) were noted, indicating terracing, where the slight slope of the southeast slope was gradually removed during construction. Construction phases were also noted in some locations.

Strong georadar reflections in some spaces could be due to debris or pressure. Strong magnetic anomalies of the thermoremanent type were noted in some

spaces, which could be collapsed tile roof structures or other sources of strong magnetic anomalies, such as furnaces and masonry central heating elements.

Limitations of the results of the geophysical survey

Deep terraces on the slopes severely limited the results of the geophysical survey (see Figures 37 and 38).

Poorly preserved walls (e.g., up to a height of one row of stones) are very poorly visible or invisible due to the inhomogeneous geological substrate and the small differences between the sandstone walls and their immediate surroundings.

In Zone 2/1, the archaeological layers begin at a depth of 1.5 m and extend at least to a depth of 3 m, so they were not reached by the GPR measurements.

In 2015, the measured distance between the georadar profiles was 1 m, while in 2012 it was 0.5 m. This means that the measurement in 2012 was more accurate in areas 2/5, 2/6 and part of 2/7 and the walls are more visible than in other parts of the Panorama. The difference in data quality is clearly visible in the composite images of two different georadar measurements (Fig. 36).

So, considering the above data, we must know that the real picture of the archaeological remains under the surface is much more complicated than it appears from the interpretation of the results of geophysical research.

Use of the results of the geophysical research

In analysing the archaeological data from Panorama, we considered the general GPR image (Fig. 37), interpretations of the GPR measurements for all depths combined (Figs. 12, 17, 27, and 29), and specific interpretations for four depth intervals: 96-115 cm, 78- 98 cm, 61-80 cm, 44-63 cm (Figs. 11, 14-17, and 39). For zones 2/5-7, measured with georadar profiles at 0.5 m depth, we also present the intervals of four selected depths: 49-55 cm, 43-49 cm, 37-43 cm, 27-33 cm.

For some parts of the Panorama, we obtained important data from the results of the resistivity measurement (for areas 2/8 and 5; figs. 30 and 35) and the magnetic method (for area 4; fig. 38).

6.3 MONUMENT VULNERABILITY AND THREATS

General assessment of the threat to the monument

The remains are well protected by sedimentary deposits, so they are not directly exposed to natural factors (precipitation, frost). In steeper areas, there is a risk of creep or erosion that could adversely affect the remains.

No flood or earthquake hazard has been identified.

Risk assessment

The greatest risk to archaeological remains is encroachment of any kind. There is also a great long-term risk due to possible improper maintenance or insufficient financial resources for maintenance. All this can lead to long-term deterioration of the monument, which can also mean that the monument is included in the tourist offer without adequate interpretation to guide visitors in an appropriate way. A very great danger for the archaeological site, whose remains are hidden underground, is its unrecognizability. In order to increase visibility, the site must be interpreted.

6.4 PRESERVATION AND PROTECTION OF THE MONUMENT

General guidelines

Panorama represents an archaeological site of the highest category, therefore any intervention in the space must be consistent with the protection of cultural heritage, while the needs of modern society for education, recreation and identity needs must also be taken into account.

Archaeological remains are protected on the surface and below the surface of Panorama (OPN, OPPN Regulatory Area No. PA01) as a source of knowledge about human cultural activity in the past and as a means for archaeological and historical study, as well as a fundamental identity. They have importance for the development of economic and tourist capital.

The cultural, archaeological, historical, settlement, architectural and landscape values of the monument area as a whole and their originality in the place of their creation are protected.

Undeveloped land and areas are protected from the construction of facilities, installations and other forms of intervention of a permanent or temporary nature that have a destructive effect on archaeological underground cultural layers and structures, prevent archaeological research or do not contribute to the increase of the testimony of protected cultural values in the area of the cultural monument. Interference with the archaeological layers and structures of the cultural monument is permitted only within the framework of archaeological research for the purpose of presentation and interpretation of structures and individual sections in accordance with the legislation and with the prior consent of the Public Service for the Protection of Cultural Heritage

Prior to the reconstruction of existing or the construction of new structures and facilities that serve the general public and enable the interpretation and public presentation of protected components or parts of the archaeological monument unit and increase their testimony in space, preliminary archaeological research shall be conducted in accordance with the previous paragraph.

The use and intervention in the open space must be subordinate to the protection and preservation of the protected views of Panorama Hill, Vičava, Museum Square with the Dominican Monastery complex and the mediaeval fortress and the river Drava, as well as the preservation of the views from Panorama Hill, the protection and preservation of the historical area with the steepness of the mediaeval road between Mali grad (Prešernova ulica 33, 33a, 35) and Prešernova ulica 37.

The monument with its individual components or complexes should be accessible to the public to an extent that does not jeopardise the protection of its individual values, and in proportion to the possibilities of the owners or landowners, taking into account the needs of the local community, which do not contradict the conservation measures.

The placement of advertising media and billboards is prohibited. Exceptions are the marking of the monument or its individual components and assemblies, as well as explanatory panels that increase the witness and serve the interpretation of the monument and serve the needs of the public. All this must be done in accordance with the regulations and with the prior consent of the public heritage authority.

Guidelines for the preservation of protected values

All elements (walls, foundations, canals, wells) currently preserved in the site will be preserved in situ - in the original area of the monument. The most expressive elements must be given a new function through appropriate presentation and interpretation, in the service of preserving the content and values of the monument and meeting the needs of modern society, especially the local community.

All presented elements must be provided with multi-interpretive content. Various means of interpretation and communication will be used to facilitate understanding, and the method of interpretation must be adapted to the needs of the public.

6.5 TRAFFIC REGULATION

Access

The area of the archaeological park is accessible to motor vehicles, cyclists and pedestrians from the direction of the old city centre along Prešernova Street and via Muzejski trg along the south side of Castle Hill, along the north side of Castle Hill along Raičeva Street, along the road from the direction of Vurberk along Grajena and locally from the settlement of Vičava. Pedestrians can also reach the Panorama directly from the castle hill.

Parking lot

Parking is currently located in the area of the Castle Hill, directly on the edge of the Panorama area.

Public transport

Buses of public transport on the line Mestno jedro have stop No. 8. in the area of the parking lot under the castle, in the immediate vicinity of the entrance to the Panorama

6.6 ANALYSIS OF TOURISM UNTIL 2021²

The city of Ptuj and its surroundings is an interesting tourist destination for several reasons: historical documents identify it as one of the oldest cities in this part of Europe, it has a rich cultural heritage and natural features, a diverse festival and art offer and provides opportunities for exceptional wine and culinary experiences. Nevertheless, tourism has not developed sufficiently in comparison with other Slovenian cities and according to the expectations of the inhabitants.

From an economic point of view, there are untapped potentials and further development opportunities in the field of tourism. In recent decades, much has been said and written about the development of tourism in Ptuj. Much has been achieved, but much remains only at the conceptual level. Over the years, the responsibility for the development of tourism has been organized in different ways or in different organizational forms, which, however, could not last for a long period of time. In recent years, this responsibility has been distributed among various organizations, economic entities, institutions and under the influence of various initiatives, which, at least at the implementation level, were not sufficiently interconnected and coherent in their functioning. At the broader level of Spodnje Podravje, the role of strategic manager of the destination was taken over by RDO - ZRS Bistra Ptuj.

In the "Vision and Strategy of the Municipality of Ptuj 2015-2025", the basic development document of the municipality, tourism was defined as one of the four main strategic development directions. Accordingly, at the beginning of 2016, the Municipality of Ptuj City Council adopted the ordinance on the establishment of the Public Institute of Tourism Ptuj as an umbrella institution responsible for the comprehensive strategic management of the destination. The latter includes tourism development and marketing planning, tourism product development, promotion, marketing and coordination, and communication with all stakeholders.

² Javni zavod za turizem Ptuj, 2022, Analiza stanja turizma na Ptuju do leta 2021 in razvojne usmeritve 2022-2028.

SWOT analysis of sustainable economic activities

ADVANTAGES	WEAKNESSES
<ul style="list-style-type: none"> - Excellent location on the outskirts of the old town. - Ptuj is a well-known tourist destination. - Attractive public green area. - Already established events in the area of the Archaeological Park. - Continuity of archaeological research in the area. 	<ul style="list-style-type: none"> - Unrecognized tourist offer. - No tourist products.
OPPORTUNITIES	DANGERS
<ul style="list-style-type: none"> - Development of innovative and sustainable products with clearly defined cultural content. - Use of modern information and communication technologies for the presentation of cultural heritage. - Attraction of domestic investors. - Preparation of a competition for landscape design, which will be the basis for the elaboration of the detailed municipal spatial plan. 	<ul style="list-style-type: none"> - Lack of financial resources for further development. - Insufficient attention to the preservation of the monument. - Conflict of interest.

Accommodation capacities 2011 - 2021

Ptuj has a relatively favourable structure of accommodation capacities to achieve favourable seasonal coverage and added value. Hotel and similar capacities represent 46% of all capacities in 2021. Capacities increased significantly until 2018, but since then they have stagnated or even decreased during the C-19 crisis due to the closure of activities (temporarily?). For comparison, in 2018 there were 1,429 beds in the municipality of Ptuj, in 2021 the number dropped to 1,223.

Table 2: Range of accommodation capacities 2011 - 2021

Število nastanitvenih sob/enot (po vrstah nastanitve)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Hoteli in podobni obrati	212	217	206	206	219	232	230	230	230	230	230
Kampi	120	120	128	128	128	128	128	128	128	128	128
Ostale vrste obratov (sobe, domovi,...I)	169	165	169	170	176	179	169	173	147	140	140
SKUPAJ VSE SOBE/ENOTE:	501	502	503	504	523	539	527	531	505	498	498

Število vseh ležišč (po vrstah nastanitve)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Hoteli in podobni obrati	447	458	435	403	462	486	489	489	489	489	489
Kampi	277	277	400	400	400	400	400	400	400	400	400
Ostale vrste obratov (sobe, domovi,...I)	539	531	552	525	569	578	531	540	323	334	334
SKUPAJ VSA LEŽIŠČA:	1.263	1.266	1.387	1.328	1.431	1.464	1.420	1.429	1.212	1.223	1.223

Development of tourist traffic 2011 - 2021

In the years 2016 to 2019, there was a relatively favourable growth of tourist traffic in Ptuj, mainly at the expense of a significant increase in foreign guests and overnight stays. In the same period, we noticed a slow decline in domestic guests and overnight stays. In the crisis year 2020, there was a significant decrease in foreign guests and overnight stays, which was partially compensated by an increase in domestic guests in 2020, also due to the use of tourist vouchers. In 2021, there was another rapid increase in foreign guests and overnight stays compared to 2020 and a dampening of further growth in domestic guests.

Table 3: Development of tourist traffic 2011 - 2021

IND Ptuj	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Vsi prihodi skupaj	55.508	55.827	54.353	56.613	58.127	58.819	64.165	66.219	67.062	32.138	66.647
Domali prihodi	25.304 45,7%	24.032 43,0%	23.268 42,8%	26.216 46,3%	27.026 46,7%	25.910 44,1%	25.029 40,0%	24.274 36,8%	22.702 33,8%	22.547 70,2%	26.562 39,8%
Mednarodni prihodi	30.194 54,3%	31.795 57,0%	31.085 57,2%	30.398 53,7%	31.101 53,3%	33.909 57,9%	39.136 62,0%	41.945 63,2%	44.360 66,2%	9.591 29,8%	37.885 56,2%
Vse prenočitve skupaj	147.420	147.581	134.738	136.408	145.700	142.087	152.593	152.179	157.036	90.845	166.783
Domali prenočitve	74.706 50,8%	69.402 47,0%	65.246 48,5%	70.640 51,8%	77.536 53,2%	74.594 52,5%	76.494 50,1%	70.358 46,2%	66.226 42,2%	70.656 77,8%	72.746 43,6%
Mednarodne prenočitve	73.022 49,2%	78.179 53,0%	69.492 51,5%	65.768 48,2%	68.164 46,8%	68.293 47,8%	77.097 50,5%	81.820 53,8%	88.810 56,6%	20.991 23,1%	72.827 43,6%
POB skupaj	2,7	2,6	2,5	2,4	2,3	2,4	2,4	2,3	2,3	2,8	2,4
vsi domači gostje	2,9	2,9	2,8	2,7	2,6	2,6	2,6	2,6	2,6	3,1	2,7
POB tuji gostje	2,4	2,3	2,2	2,2	2,1	2,0	2,0	2,0	2,0	2,1	1,8

Analysis of tourist traffic in Ptuj 2021

In 2021, the second year of the C-19 epidemic, Ptuj realizes 38.3% more arrivals of all tourists and 16.4% more overnight stays of all tourists than in 2020, which is still 33.7% less arrivals and 32, 6% less overnight stays than in the record year 2019. This means a better recovery than the average in Slovenia in terms of growth in the number of tourist arrivals (Slovenia in 2021 still 35.8% lower than in 2019) and slightly worse in terms of overnight stays (Slovenia in 2021 only 29.2% lower than in 2019).

A positive feature of Ptuj as a destination in 2021 is the extraordinary growth in arrivals and overnight stays of foreign tourists, which is significantly higher than the Slovenian average and also higher or at least comparable to other city destinations, which on the other hand is also a consequence of the extraordinary decrease in foreign overnight stays in Ptuj in 2020.

The biggest weakness of the otherwise good recovery of Ptuj as a destination in 2021 is the extraordinary decrease in the average length of stay of tourists, especially foreign tourists, compared to the previous year and also to 2019, which decreased to 2.4 days in 2021, while guests even to 1.8 days, which is the biggest reduction compared to other cities and also to the average in Slovenia.

Consequently, the share of Ptuj destination in all overnight stays realized in Slovenia decreased from 0.99% in 2020 and also in 2019 to 0.94% in 2021.

Table 4: Comparative dynamics of key indicators of tourism traffic (growth index I- XII 2021/2020)

Destinacija	Vsi prihodi	Domači prihodi	Tuji prihodi	Vse nočitve	Domače nočitve	Tuje nočitve	Delež tujih nočitev '21	PDB vseh gostov 2021 (dni)	PDB vseh gostov I _{21/20}	PDB tujih gostov 2021 (dni)	PDB tujih gostov I _{21/20}
Ptuj	↑138,3	↑117,8	↑186,5	↑116,4	↓103,3	↑161,4	31,1%	2,4	↓84,1	1,8	↓86,6
Slovenija (pvp)	↑130,5	↑117,4	↑150,4	↑121,5	↑110,4	↑142,9	42,8%	2,8	↓93,1	2,6	↓95,0
Maribor	↑142,8	↑124,2	↑150,2	↑125,9	↑123,0	↑126,7	78,6%	2,4	↓88,2	2,5	↓84,4
Ljubljana	↑162,9	↑159,8	↑163,5	↑160,2	↑151,3	↑161,8	86,3%	2,1	↓98,4	2,1	↓99,0

The position and importance of Ptuj in Slovenian tourism

The tourist destination of Ptuj (territory of MoD Ptuj) has a share of 0.99% of all overnight stays in Slovenia in 2019, but only 0.94% in 2021. In 2019, Ptuj reached a share of 1.2% of all domestic overnight stays realized in Slovenia, and in 2021, a share of 1.13%. Of all foreign overnight stays realized in Slovenia, Ptuj has a share of 0.61% in 2019 and 0.69% in 2021.

The tourist destination of Ptuj accounts for 1.05% of all guest arrivals generated in Slovenia in 2019 and 1.11% in 2021. Of all domestic arrivals generated in Slovenia, Ptuj accounts for 1.49% in 2019 and 1.22% in 2021. Of all foreign arrivals realized in Slovenia, Ptuj accounts for 0.94% in 2019 and 0.98% in 2021.

The destination of Ptuj has 0.87% of all available rooms (accommodation units) in Slovenia and 0.81% of all tourist beds.

Day and excursion visits in Ptuj

1. Collections of the Provincial Museum Ptuj - Ormož (PMPO)

In the tourist destination of Ptuj, the PMPO manages a rich cultural heritage, which both individually and in its entirety represents one of the most important tourist attractions of Ptuj and its surroundings. All collections of the PMPO are visited annually by 50,000 to 80,000 visitors, mainly (60-70%) Slovenian guests, a large part of which are compulsory or voluntary school programs. Nevertheless, since 2015, international visits have also been steadily increasing. The PMPO collections in Ptuj Castle are one of the most visited museum collections in Slovenia.

2. Thermal Park at the Ptuj Thermal Baths

Since its construction (1974/76), the Termalni Park swimming pool complex in Terme Ptuj has been part of the basic tourist and recreational infrastructure of Destination Ptuj, on the basis of which not only the additional tourist accommodation offer in Terme Ptuj was developed, but it is also used by guests of other providers of tourist accommodation facilities in Destination Ptuj, as well as by many daily guests and locals. The number of daily bathers in Terme Ptuj has decreased in the last 3 years before the C-19 crisis period, which, due to the large part of outdoor pools, is also caused by the weather conditions in the months of June to September in individual years, and most likely also by the lack of investment in the modernization of the offer in recent years. Nevertheless, the number of daily bathers in the Thermal Park fluctuates between 170,000 and 200,000 per year.

3. Dominican Monastery

The Dominican Monastery, as an event center in a historical top building, represents an important part of the event and tourism infrastructure as well as one of the attractions of the Ptuj destination, managed by the city's public services. The number of daily visitors touring the historic building is increasing year by year, which confirms its attractiveness for tourist visits and its reach in 2019: 3,500 visitors per year. The number of events held in the event spaces of the Dominican Monastery is also increasing, and with it the number of event visitors, which in 2019 reached 11,500 visitors to various events per year, which of course include mainly domestic guests and locals from Ptuj and its surroundings.

4. Tourist Information Center (TIC) Ptuj

TIC Ptuj, as a unit or one of the activities of the Institute of Tourism Ptuj, represents the basic point and provider and coordinator of information for tourists and visitors in the city. The location of TIC Ptuj in the centre of the historical city centre on Slovenski trg is also a central historical tourist attraction, where a large number of foreign and domestic tourists and day trippers move. Therefore, the number of visitors to TIC Ptuj reaches about 13,500 annually, most of whom (80%) are foreign guests. The largest number of visitors to TIC Ptuj is recorded in the summer months (August, July, September), when people also stay in Ptuj or it is visited by the largest number of foreign guests or day visitors. The monthly number of visitors in these months is between 4,000 and 5,000.

Calculation of lost profits due to the C-19 in 2020-2021

The lost benefits, that is, the difference of each category between the scenario of tourist traffic and its economic consequences that would have unfolded without the C-19 crisis and the traffic actually realised in this period, in the number of overnight stays, the difference is for the year 2020; 75,621 overnight stays, for the year 2021; 66,337 overnight stays or together for the entire observed period of two years; 141,958 of all overnight stays lost.

The difference of lost services in the revenues of accommodation and catering establishments on the territory of the Municipality of Ptuj amounts to EUR 4.0 million for the year 2020, for the year 2021; EUR 3.6 million or together for the whole observed period of two years; EUR 7.6 million of lost revenues.

The difference of lost benefits in the income of all other indirect and induced income from the consumption of tourists and tourism providers in the environment is 5.0 mil. EUR for the year 2020. EUR, for the year 2021; 4.46 mil. EUR or together for the whole observation period of two years; 9.5 mil. EUR in lost revenues.

The difference of lost benefits in the revenues of the Ministry of Tourism Ptuj from the tourist tax is 151,242 EUR for the year 2020, for the year 2021; 132,674 EUR or together for the whole observed period of two years; 283,916 EUR in lost tourist tax.

Due to the decrease in revenue from tourism and related businesses in the area of the Ministry of Defence of Ptuj, there was a threat or loss of 63 jobs directly in accommodation tourism providers and 47 jobs in other tourism-related activities or a total of 111 jobs in the area of the Ministry of Defence of Ptuj.

At the same time, it does not take into account the additional lost revenues of the public sector (state treasuries and municipalities) due to the reduction of VAT payments, contributions and taxes, etc., which represent additional lost benefits.

Further development of tourism in Ptuj

The consequences of the epidemic must be eliminated with measures and strategic directions:

- Proposal of the main strategic directions of development in the field of tourism development.
- Development directions in light of the consequences of the Covid 19 epidemic and measures for recovery and resilience in the field of tourism within Slovenia and the EU.
- Harmonisation of development goals, policies and measures with the strategic framework of the new strategy for sustainable growth of Slovenian tourism 2022-2028.

6.7 DIGITALIZATION AND INFORMATION-COMMUNICATION TECHNOLOGY

The term information and communication technology (ICT for short) refers to the totality of various carriers and networks of information and communication content that enable the storage, processing and transmission of information.

ICT tools act as intermediaries between the archaeological park and users. They enable more efficient content editing, better monitoring and processing of information, and also contribute to better visitor accessibility and involvement.

The new technologies offer visitors a better experience and understanding of the heritage by bringing it closer to them through recreating the past, encouraging new interpretations in the research process, and providing new opportunities for heritage education, including in a playful way.

Currently, there are no ICT tools installed in the archaeological park. Information panels and copies of monuments are located in the Panorama area.

SWOT analysis of ICT tools

ADVATAGES	WEAKNESS
- Added value and increased visibility of AP and the entire area.	- Lack of a comprehensive digital policy and integrated AP management tool .
OPPORTUNITIES	DANGERS
- Project Transfer: a management model that includes ICT tools and has many positive effects on AP and the whole area in which it is located.	- Lack of continuity of projects, programs and strategies.

7 PARK DEVELOPMENT DIRECTIONS

It is necessary to allow public presentation of the whole, individual protected components or parts of the monument unit. Interpretation must be aimed at conveying the social values of the monument. The archaeological park must be designed in such a way that it does not endanger the protected values, promotes their integration into modern society, and is designed with prior approval of the public service for the protection of cultural heritage in accordance with cultural protection laws and other regulations.

The participatory approach or the active involvement of the local public must be taken into account as much as possible in the planning of the archaeological park. Only on the basis of determining the basic starting points, for whom (which public) and in what form the archaeological park will be intended, it was possible to determine the starting points for all necessary activities.

The establishment of an archaeological park is basically possible in three ways or in various combinations:

1. Landscaping of the site

Landscaping is done in a way that contributes to the interpretation of the area. The starting point for the landscape plan is the conservation plan. With the help of modern interpretation tools, various parks and trails with planting can illustrate Roman streets, squares, buildings, burial grounds, etc. This type of design does not interfere with the structure of the remains, but allows for the spatial understanding of the remains, the preservation of the commemorative space and its multi-faceted experience with a multi-purpose use (recreation, walking, education, workshop, etc.). The presentation and interpretation of objects in nature also involves a great deal of landscape design, taking care to focus attention on the content values of the monument (e.g., cemetery, shrine, church, forum, etc.), which require a different interpretive approach.

2. Presentation and interpretation of objects in nature

The presentation and interpretation of objects in nature involves many difficult decisions. First and foremost is archaeological research. Regardless of the scope or phase of the research, consolidation and restoration of excavated remains in situ follows. The presentation and interpretation of the structures depends largely on the condition of the structures and the new information obtained. The same is true for movable remains, i.e., small finds for which a place would have to be provided in a museum exhibition, together with a presentation and interpretation that must maintain the link with the monument.

In the aforementioned case, research may also find various layers of remains that are limited in time or space. In these cases, the dilemma of how to present the individual layers often arises. The decision must take into account the concept of overall presentation in favour of the needs of the public.

The excavated remains must be adequately protected from deterioration, which may include the design and construction of protective structures that should be included in the presentation as a way of interpreting the monument.

Areas excavated in 1911 and 1913, about which we already have a lot of data (building X - sanctuary, commercial building?; building XVI - baths), would thus have priority for research and presentation, and with revision excavations it would be possible to obtain more information.

For presentation and interpretation, the most appropriate buildings would be those that best illustrate their function in the city, highlight the distinctive features of Poetovio, and have broader cultural-historical (e.g., for the development of the Roman city, for period representation) or aesthetic significance. Buildings that are clearly visible on a GPR or resistivity image (meaning that the walls are well preserved) would also be preferred for presentation. In such cases, the excavation area or excavations could be optimally oriented.

Based on the above, the following buildings and structures were shortlisted for research, presentation, and interpretation:

1. Object XXX - presumed wall with tower (archaeological research in 2020).
2. Building XVIIa - presumed sanctuary.
3. Building XVI - thermal baths.
4. Building X- XIII (selection) - multipurpose rooms (military, trade, craft).
5. Church.
6. Building XV - very well preserved, function unknown.
7. Round room in building XIV - probably the thermal baths.
8. Building XXVIII and water supply.
9. One of the residential buildings (I or VII).

The greatest potential for interpretation and presentation is the central part of the site with the most archaeological remains, where excavations also took place (walls, temples, baths, etc.). So the entire zone 2/1 - 8 and the northeastern slope No. 3/1.

Taking into account the wishes of the local community, it is planned to use the space for a lookout point (panoramic view of the surroundings) and a snack bar with benches at the lookout point where the foundations of the Roman building were excavated. In this part, the architectural presentation of the original Roman building would be considered with modern elements that should not overwhelm the interpretive features of the original monument. In this case, all the infrastructure could be "hidden" on the southern slope. The remaining part of Area 2 (together with Parcel 3/1) envisages extremely cautious interventions, only superficial, in the case of structures that would require excavation, preliminary excavations and a presentation of the discovered structures with substantial interpretations of the original use of the space. Interpretations that would not compromise depth include plantings (pergolas or trellises with vines (native species that do not require spraying), structures with boxwood, or interpretations with lattice structures - consistent with the expectations of the local community, which expects plantings for shade walks. Proposed are copies (artistic reinterpretations) of archaeological finds (statues, objects, bowls, a special challenge representing, for example, the Nutrices, the cult of the Danubian Horsemen, etc.). On the south side of the hill (zone 2/1-2) would remain open a space that would allow to perform concerts with movable equipment (stage, movable benches, etc.).

In zone 3/1 it would be possible to establish sc. "outdoor classrooms" that would allow classes to be held on the site, equipped for this purpose with display boards and infrastructure; at the same time, consider how the area could be made functional with the least possible intervention in depth. The zone 3/2 (northern part of the zone 3) has already suffered damages due to the construction of the terraces.

In Zone 3 to the north (modern terraces and perhaps undiscovered remains), the protection regime allows for deliberate interventions and a more relaxed use and reinterpretation of the space. We propose a use in the form of playgrounds (toys interpreting Roman themes and material culture), terraces for walks and learning paths. It can also include interpretive works by artists.

Zone 5 includes the area of the necropolis and allows for interventions with preliminary studies and landscape interpretation of the space to interpret and recreate the feeling of tombs, benches and paths through the planting of different plant species. The interpretation must be based on preserving the original sacred significance of the space or ensuring that the space of memory is preserved (for individual walkers and more contemplative visits to nature). At the request of the local community, a space for beekeepers will be established just below the summit (on the lower of the two peaks of the Panorama), which will complement the burial space and give it a new quality by planting medicinal and honey plants. Again, artistic interpretations of the content themes of the monument and the theme of the finds are welcome. Perhaps also signs with the names of Roman people known from Panorama.

Zone 4 on the north side is less sensitive, useful areas that could serve for the necessary infrastructure in the space for experimental archaeology and other events that preserve the historical message and values of the space.

A modern interpretation of the Roman aqueduct and water reservoir with a modern fountain or other interpretation of the water element is planned. At the same time, the course of the necessary infrastructure must be taken into account, as minimal interventions must be ensured, while at the same time care must be taken to preserve the material values of the monument.

3. Interpretation centre

It would be useful to establish an interpretive centre in the immediate vicinity of the Panorama. Depending on the size of the area, the centre could also be placed on Panorama, but only in the part where the harmlessness of the intervention for the archaeological remains would be verified by additional archaeological investigations. Since in this case it would be an intervention in the protected cultural heritage, it is necessary to create starting points that take into account all aspects of the protection of cultural heritage, from the interference with the cityscape of Ptuj to the intervention in the structure of the Panorama itself, and of course take into account appropriate spatial plans.

Therefore, it would be useful to consider other options for the placement of the interpretation centre in the immediate vicinity of the monument.

7.1 PLAN AND GUIDELINES FOR PRESENTATION OF ARCHAEOLOGICAL REMAINS

The goal of the plan is to establish basic guidelines for the design of the archaeological park at Panorama based on concrete archaeological data. We will show at which places of the Panorama and with the help of which immovable remains we can bring closer to the visitor certain themes from the Roman period. Based on new field research and new findings, it will be possible to adjust the basic plan and add new themes.

Implementation plans and funding needs are not part of this study, as they depend on many factors and go beyond the needs of the current park design phase. We also do not focus on the many possibilities to connect the archaeological monuments of the Panorama with other places in Ptuj, with cultural events, with museum presentations and the possibilities offered by the virtual environment. All these connections can be included in the basic plan at any time.

The plan for the presentation and interpretation of the archaeological remains is based on the results of the archaeological discoveries presented in the work by J. Horvat, B. Mušič, A. Dolenc Vičič, A. Ragolič, *Archaeological sites of Petoviona. Panorama* (2020; hereafter Horvat et al. 2020) and in the *Conservation Plan for the Archaeological Site of Panorama* (2018). These studies also present the importance of cultural heritage on Panorama from all aspects.

We have also included the results of the latest research in the plan: B. Mušič, *Report on geophysical research. Panorama na Ptuj* (2020), J. Horvat et al, *Archaeological research at Panorama na Ptuj 2020. First report* (2021).

Starting points

The archaeological remains on Panorama are not visible on the surface. Their location and shape can be seen mainly on the images of ground penetrating radar surveys.

In the monograph on Panorama (Horvat et al. 2020), the area was divided into five zones, and the individual buildings and ancient streets were numbered (Figs. 4 and 12). In the following, we use the maps and labels from this publication.

Temporary walking paths were created in Panorama, leading through some of the streets of the ancient city (Fig. 39).

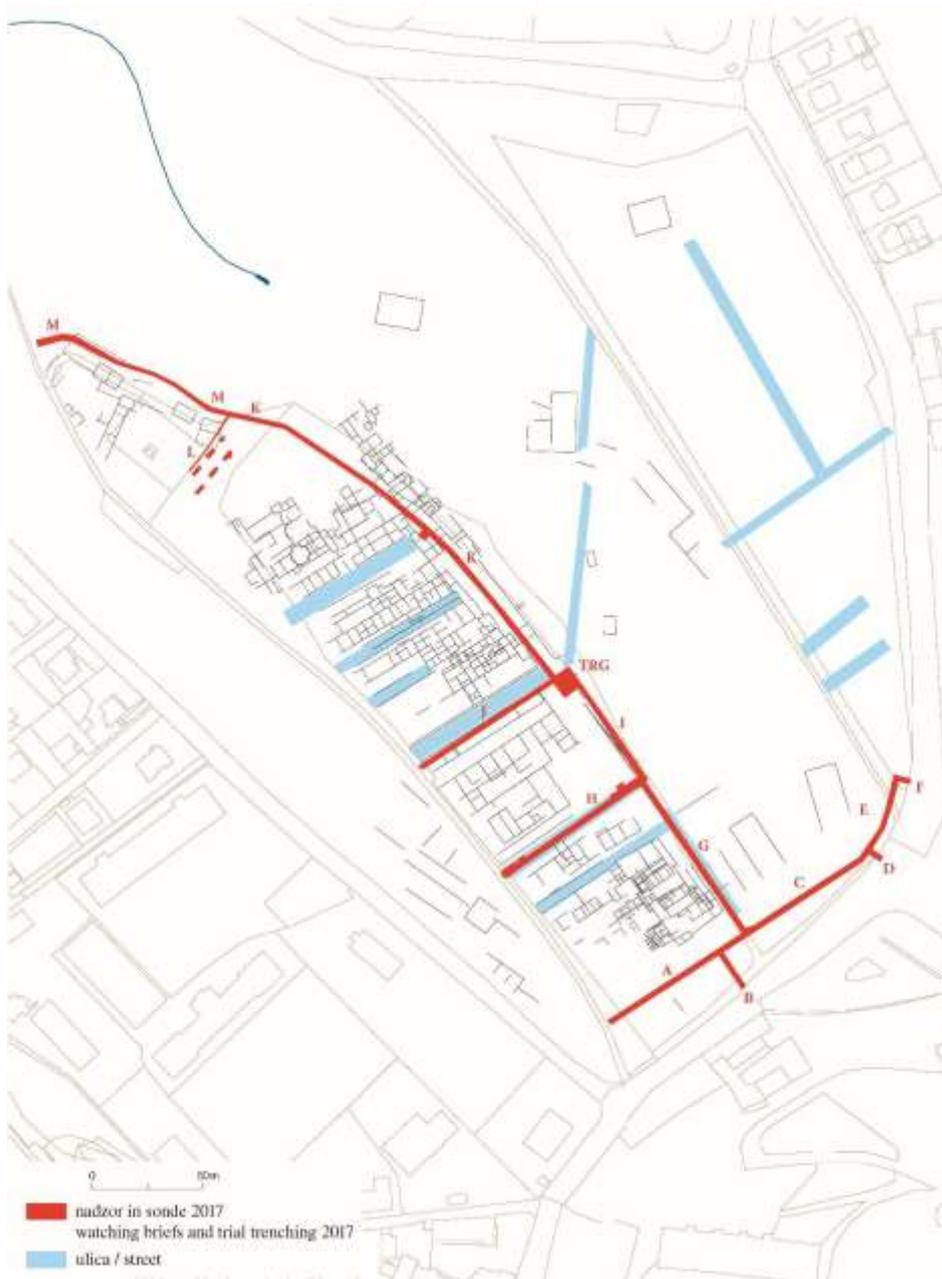


Figure 39: Panorama. Modern walking paths (after: Horvat et al. 2020, p. 14).

Depending on the importance and quality of the data, the remains under the surface can be divided into several groups:

1. Architectural remains are located, well preserved, and clearly visible on the georadar image:
 - a. the function is known;
 - b. Function is assumed;
 - c. unknown function.

2. Architectural remains are localised but poorly visible on GPR image:
 - a. well-preserved remains, but higher resolution GPR measurements are needed;
 - b. poorly preserved remains;

- c. Remains on the northeastern slope; due to the deep terraces of the modern orchard, they have been partially damaged and partially filled in;
- d. there are thick soil deposits at the base of the hill due to erosion; archaeological remains lie at great depths and are less detectable by geophysical methods.

3. Architectural remains with known function, but only roughly located; degree of preservation is unclear. Data are from older excavations, whose location on the georadar map is unreliable.

4. Significant ancient stone monuments preserved in the museum or incorporated into the City Tower. They are from Panorama, but from a secondary location, or the information about their primary location is lost.

There are few architectural remains on Panorama that are well located and clearly visible on GPR images and whose function is clear (e.g., walls, streets, squares, Fig. 14 and 38). Many archaeological remains were located, but their function is suspected or unknown (e.g., large buildings on the southeast slope). Some important remains with known function are only approximately located, or information about the original site has been lost (e.g., baths, fig. 20). Thus, relatively little useful data is available for a comprehensive account and for the depiction of Roman life in Panorama.

Since new archaeological research will bring further important information, the park must be planned in such a way that the representations can be supplemented. The following fieldwork is planned for the short and medium term:

1. GPR survey of zones 2/2 to 2/4 in high resolution. In this way we will obtain a better quality plan of the central part of the Panorama.
2. Small-scale archaeological research (trench excavation), which will help clarify the function and chronology of individual objects and provide many details that can enrich the representation of life in the city.
3. More extensive archaeological research will open up opportunities to illustrate the course of walls in the ground, the possibility of preserving the original walls and floors, the possibility of illustrating the volume of buildings, reconstruction, etc.

In the first phase, a larger investigation would be useful:

- in areas that were explored at the beginning of the 20th century: Building X, XI, XVI (checking and supplementing the findings of that time);
- exploration of interesting buildings that are well preserved and clearly visible on the georadar image (e.g. buildings XVIIa, XIV, XV).

Presentation plan (suggestions)

The best preserved and visible archaeological remains are located on the southeastern gentle slope (Zone 2, Fig. 4). Most archaeological presentations should be directed toward this area.

The presentation is divided into themes that relate to well-placed architectural remains or important spaces. For each topic, the location in space, technical background, content of the presentation, possible forms of presentation, possible problems, future research plans, and further significance to the presentation are given. There is an additional commentary at the end. Of the possible forms of

presentation, we give only a very basic framework for presentation or explanation in physical form, on site itself. Concrete forms and implementations, as well as any extensions (virtual, museum...) will be the subject of more in-depth studies.

The importance that a particular archaeological assemblage has for presentation to the public can be large, medium or small, and depends on

- how much high quality archaeological data we have,
- how well we can relate the archaeological assemblage to historical phenomena (events, society, economy, religion...),
- how well the archaeological complex is connected with the other archaeological monuments of Poetovio.

1. Road network

Location: zones 2, 3, 4.

Technical basis: the course of the roads can be seen on the georadar image.

Content of the presentation: road network in Panorama, urbanism of Roman cities, construction of roads and streets.

Possible forms of presentation: an information board with a map of modern and ancient roads, illustrations, walking routes along ancient roads.

Importance for the presentation: very important.

Comment:

By illustrating the street network, visitors realise that they are in the territory of a once densely built city. The concept of streets and the city network is familiar to him from everyday life and thus he can get closer to the old city. Therefore, the presentation of the street network is very important for the presentation of the site.

(Fig. 12)

2. The traffic situation of Poetovio at the junction between the eastern and the western part of the Roman Empire

Location: zone 2/8 - Panorama Peak.

Base: excellent view.

Content of the presentation:

- Poetovio's position in the Roman Empire (Amber Road, Road to Rome, Road to Constantinople, Bridge over the Drava River);
- territory and economic area of Poetovio (quarries in Pohorje, water supply from Pohorje, expansion of Poetovio, end of the town - withdrawal of the population in late antiquity to the area of Haloze).

Possible forms of presentation: Information panels, signposts, view sketches with explanations, maps.

Significance for presentation: large.

Comment:

The panoramic location offers exceptional opportunities to place Poetovio in a larger geographical and historical space. Interpretation in this location can greatly enhance the visitor's understanding of the flow of history.

(Fig. 23)

3. The sacred place on the top of Panorama

Location: zone 2/8 - Panorama summit.

Technical Background: the remains of a sanctuary (XVIIa) are hidden underground; votive altars dedicated to Jupiter and small finds that can be associated with the

sanctuary have been found nearby. Beyond the summit, the burial ground begins (area 5).

Presentation content: general information on religious beliefs in Roman times, especially the cult of Jupiter Depulsor; rituals; religious characteristics of Poetovio. Possible forms of presentation: Information panels, copies of altars (one copy has already been made and is located in Panorama); Jupiter monuments from Panorama that are not precisely located can also be placed here); illustration of the walls of the sanctuary in the ground.

Problems: Interpretation is not entirely reliable.

Planned research:

- trench excavation to verify interpretation of a sanctuary,
- mapping of the walls of the sanctuary in the ground based on trenching,
- the central part of the supposed sanctuary was destroyed by the modern water reservoir; if removed, it will be possible to determine how much of the ancient architecture remains; bold reconstructions of the building would also be possible!

Significance for presentation: great.

Comment:

The sacred site on the hill, the relationship with the Castle hill and the river, good archaeological data, all this offers the possibility for a good interpretation. With the removal of the modern water reservoir, one of the central archaeological monuments of Panorama or even Ptuj could be preserved with minimal archaeological research and preservation.

(Fig. 23 and 24)

4. Wall with towers

Location: Zone 2/3-2/8 (investigated by excavations 2/7 and 2/8)

Professional basis: the wall is visible on the georadar image at the edge of zones 2/3 to 2/8; part of the wall and the tower were excavated in 2020 (zone 2/7, object XXX /15); a ditch in zone 2/8 (object XX) was investigated in 1983.

Content of the presentation: the army, the defence of the city in connection with the foundation of the colony (beginning of the 2nd century) and the danger during the Marcomannic Wars (second half of the 2nd century); the collapse of the city at the beginning of the 5th century.

Possible forms of presentation:

- In the zone 2/7 (XXX /15) a picture of the investigated wall in the ground (the original wall is very deep and partially destroyed), a view of the pictured wall and the tower (above the foundations in the ground) through a glass panel, an information panel, the course of the wall in the form of a green band in two directions (above and below).
- Place an information panel at the top of Panorama (zone 2/8) to illustrate with vegetation or otherwise the course of the walls across zones 2/8 and 2/7 (connecting the structures XX and XXX).
- Illustrate the course of the walls along the edges of zones 2/3-2/6 (structure XXX).

Planned research:

It would be possible to open a longer section of the walls or parts with towers in other places, e.g. above (structure XX).

Significance for presentation: large.

Comment:

Recent research has produced a lot of data useful for presentation to the public. The concept of the walls and associated towers is easily understood by visitors and does not require much additional explanation.

By displaying longer sections of the wall, it can become one of the central visible archaeological remains on Panorama.

(Figs. 14 and 23)

5. Early Christian Church

Location: Zone 2/7.

Professional basis: the location of the church (XXX /19) is indicated by finds of stone church furnishings, but its walls and concrete form are not known.

Geophysical surveys in the area have not yielded good results.

Content of the presentation: the beginnings of Christianity in Poetovio and the changes in the late Roman period.

Possible forms of presentation: Information board on site, later reconstruction of the remains based on research results (presentation of the walls in stone or with vegetation).

Problems: The ground plan of the church is unknown. We assume that the stones of the church walls were looted or otherwise destroyed.

Planned research: archaeological research could reveal the looting trenches of the walls and allow the reconstruction of the church, showing the walls on the surface (perhaps also the volume).

Significance for presentation: very important.

Comment:

Despite the lack of some important information about the church, it has great potential for presentation. The visitor can be introduced to topics that are important to the history of Poetovio. A connection can also be made to nearby sanctuary complexes.

(Fig. 14)

6. Domus with thermal baths

Location: Zone 2/7.

Professional basis: excavations of the thermal baths in 2013 and georadar image showing the remains of a large building complex (buildings XIV, XV, XVI).

Presentation content: upper class lifestyle, high residential culture, baths.

Possible forms of presentation: Information board (ideally, imaginary reconstruction of the building is possible), marking the extent of the complex in the ground.

Problems:

Many reconstructions are visible in the geophysical image due to the interweaving of walls, so it is difficult to determine the chronology, phases, appearance and functions of individual rooms and the entire building. In 1913, a part of the thermal baths was investigated, but it is not well located. It is not possible to reconstruct the building in any meaningful way.

Planned research:

A more concrete account will be possible only after the field research: Reopening of the thermal baths researched in 1913 - probable location XVI; Survey of the round hall and apsidal rooms with numerous reconstructions in the building XIV; Survey of the square room XV.

Significance for presentation: large.

Comment:

Poetovio needs a proper representation of living culture and the domus at the top of the Panorama seems to be the best choice. However, further research would be needed for a high quality presentation and interpretation. These would certainly provide important information for the understanding and reconstruction of the complex.

(Figs. 14 and 20)

7. Craft and trade complex

Location: zones 2/5, 2/6, and 2/7.

Expertise: Buildings X, XI, XII and XIII have a uniform shape and are separated by streets. The street B6 is paved. In one of the buildings (X or XI) a small sanctuary (two sacred rooms, syncretic cults) was discovered.

Content of the presentation: urban layout of Panorama; connection of long buildings with many rooms where trade and crafts were carried out; a small sanctuary.

Possible forms of presentation: Information board (drawing reconstruction of the area), marking buildings and streets on the ground.

Problems: lack of data for reliable reconstruction and chronology of buildings; shrine not located.

Planned research:

- field research to locate the sacred spaces already excavated in 1911 (building Xa or XIa) and to better understand the architecture of the longhouses, functions, phases and chronology;

- on this basis it will be possible to improve the interpretations, to illustrate the course of the walls in the ground (it will also be possible to preserve the walls or build on them the reconstruction of the building), to add content about Roman construction techniques.

Significance for the presentation: large.

Explanation:

The presentation of the craft complex makes sense together with the road network and infrastructure. These remains could be combined with the Domus with Thermae (Theme 6) to form a unified presentation covering all major aspects of life in the city.

(Figs. 14 and 18)

8. Domus VII and Square VIII

Location: Zone 2/4

Technical basis: domus with garden (VII) and small square (VIII), visible on GPR image.

Content of the presentation: residential culture.

Possible presentation forms: Information board (imaginary drawing), drawing the extent of building, garden and square in the ground.

Problems: The GPR image was taken with a low resolution, there was no field research. Therefore, the data is not reliable in detail.

Planned research: a new high-resolution geophysical survey and a small archaeological excavation are needed for a better presentation (preservation, chronology, phases, etc.).

Significance for presentation: minor.

Comment:

With appropriate presentation of Topics 6 and 7, presentation of these buildings is not necessary.

(Fig. 14)

9. Building V and Square VIa-b

Location: Zone 2/3.

Technical basis: Based on the georadar survey, the building complex V and the L-shaped square can be identified (VIa-b).

Content of the presentation: the urban design of Panorama.

Possible forms of presentation: Information board (fantasy drawing), drawing the extent of buildings, squares and streets on the ground.

Problems: The GPR image was taken with a low resolution, there was no field research. Therefore, not all data are reliable in detail.

Planned research: a new high-resolution geophysical survey and a small archaeological excavation are needed for a better representation (preservation, chronology, phases, etc.).

Significance for presentation: minor.

Comment:

With appropriate presentation of Topics 6 and 7, presentation of these buildings and structures is not necessary.

(Fig. 38)

10. Buildings I-IV

Location: Zone 2/2

Technical basis: Building complexes I- IV and the streets can be seen on the georadar survey image. The very large Building I with many rooms and preserved floors was probably the most important building in Panorama.

Content of the presentation: urban design Panorama, luxury building I.

Possible forms of presentation: an information board (imaginary drawing with a luxury building and the main street through Poetovio), drawing the extent of buildings, squares and streets in the ground.

Problems: The GPR image was taken with a low resolution, there was no field research. Therefore, the data are not reliable in detail.

Planned research: a new high-resolution geophysical survey and a small archaeological excavation are needed for a better representation (preservation, chronology, phases, etc.).

Significance for presentation: minor.

Comment:

With appropriate presentation of Topics 6 and 7, presentation of these buildings is not necessary.

(Fig. 38)

11. The main road through Poetovio

Location: Zone 2/1.

Basis: the course of the main road is known.

Presentation content: The importance of the traffic through Poetovio.

Possible forms of presentation: Information board. A copy of the marble slab of the sun deity Sol, found under the Castle hill near the Dominican monastery (visible roadway, since it was used as a road surface), could be placed in this area.

Information about Mithraism in Poetovio.

Problems: The road and the buildings along the road are very deep below the surface. Therefore geophysical measurements are unreliable, excavations would be very costly.

Importance for presentation: medium.

Comment:

Due to the location of the area at the entrance to Panorama and next to a modern road, the space is suitable for the presentation of various topics related to Panorama and Poetovio.

(Figs. 12 and 38)

12. Metallurgical and pottery activities on the top of Panorama

Location: Zone 2/8 - Panorama summit.

Technical background: in 1948 metallurgical and pottery furnaces were discovered on the northwestern edge of the summit (buildings XVIII, XIX and in the surrounding area).

Content of the presentation: handicrafts in Poetovio.

Possible forms of presentation: Information board.

Problems: each presentation requires prior field research.

Importance for the presentation: low.

Comment:

The craft activity in Panorama is poorly researched. It is better known in other districts of Poetovio, where it has already been presented to the public (Roman oven in Rabelčja vas).

(Fig. 23)

13. Construction of a steep northeastern slope

Location: Zone 3.

Technical basis: on the georadar image a road and some large buildings are visible.

Presentation content: construction of the slope; how modern interventions have damaged the remains of Panorama; protection of cultural heritage.

Possible forms of presentation: Illustration of the course of road C.

Problems: The deeply incised terraces on the slope have probably severely damaged the Roman architecture. In the southeastern part of the site, the architectural remains are covered by thick layers of deposited soil.

Planned research: Street C, the large buildings XXIV and XXV, and the unusual anomaly XXIII are of interest for research (excavation) and possible presentation.

Significance for presentation: minor.

Comment:

We know very little about the archaeological remains in this area, so it is difficult to use the area for interpretation of the ancient heritage.

(Fig. 28)

14. Building of the north-eastern foothills

Location: zone 4.

Expertise: Roads and some large buildings are visible on geophysical surveys.

Content of representation: road network.

Possible forms of representation: Indication of the course of the road.

Problems: Architectural remains are covered by thick layers of deposited soil and are therefore difficult to identify on geophysical surveys.

Planned investigations: Excavation to verify open questions about the features of this part of the city.

Significance for presentation: minor.

Comment:

We know very little about the archaeological remains in this area, making it difficult to use the area for interpretation of the ancient heritage.

(Fig. 28)

15. Aqueduct

Location: Zone 5.

Technical basis: the course of the water supply through the valley of Grajena, from the source to Panorama, has been precisely determined. On the georadar image a building (XXVIII) can be seen - perhaps a Roman water reservoir, with which the aqueduct ends.

Presentation content: water supply in Roman period; technical aspects of construction and operation of waterworks; health care in Roman period.

Possible forms of presentation: Information board; illustration of the course of water pipes in the ground, e.g. with plants or as a walking trail along the route of the water supply from Panorama to the spring; representation of the water reservoir (original or illustration).

Planned research: the presumed water reservoir at the end of the aqueduct will be investigated through archaeological excavations.

Significance to presentation: Medium.

Comment: After field research and with preservation, the aqueduct may become one of the most important monuments in the park, as it can be used to showcase the technological achievements of antiquity.

(Fig. 31)

16. Roman cemetery

Location: Zone 5.

Expertise: research of tombs and pedestals of tombstones.

Presentation content: cemetery site, burial types and relationship to ancestors in Roman times.

Possible forms of presentation: an information board delineating or highlighting the cemetery area in the landscape, copies of gravestones with explanations (one copy has already been made), possibly illustration of the bases of the gravestones.

Importance for presentation: medium.

Comment: by reconstructing some of the gravestones or graves and landscaping the surrounding area, we could create spaces of silence, peace and tranquilly.

(Fig. 31)

17. The Nutrices on Panorama

Location: no specific location.

Technical basis: seven panels dedicated to the Nutrices were used to cover a late Roman tomb on the north slope of Panorama. They originally came from the as yet unlocated sanctuary on Panorama.

Presentation content: the cult of the Nutrices as a specialty of Poetovio; Roman religion; family and child care.

Possible forms of presentation: Copies of the seven panels with explanations could be given in a meaningful and attractive view; anywhere on Panorama (a copy is currently on Square VIa).

Problems: Since the location of the dedication panels in the burial ground was not primary and their shrine has not yet been found, they can currently be placed anywhere on Panorama.

Significance for interpretation: medium.

Comment:

Although we do not know what the shrine of the Nutrices looked like and it is not located in the area of Panorama, the dedication panels open up an important theme of Roman and contemporary society. With a good placement, they can become one of the focal points of the archaeological park.

(Fig. 38)

7.2 DEVELOPMENT OF TOURISM AND MARKETING STRATEGY³

Tourism in Ptuj follows and will continue to follow the principles of sustainable development in its development, both in the environmental, economic and social spheres. The sustainable orientation is in line with the broader development strategy of the Municipality of Ptuj, as well as with the general national development framework.

Ptuj will be internationally recognised as one of the most important beauties of Slovenia and Central Europe, worth visiting for its extremely creative and open-minded people and for the authentic experience of its rich cultural heritage and the cultural pulse of the old town, surrounded by nature with its beneficial waters and vineyards.

Ptuj will offer tourists high quality, boutique and creative experiences that will originate from the local environment and exceed the expectations of visitors. The destination will ensure this through integration and partnership cooperation, support of the local community, excellent knowledge of the market and the use of modern digital technologies, effective marketing and constant investment in the development of appropriate infrastructure and personnel.

Possible advantages of the Ptuj destination brand

Defining the basic meaning of the destination brand for the target customer and clearly defining the added value or benefits for the visitor are key issues in creating a marketing brand.

The core of the Slovenia brand is the sense of self, well-being and relaxed enjoyment. "We feel Slovenia" is a green, active and healthy brand. These are the general characteristics that every brand must have in one way or another at the destination or product level.

Based on the analysed target segments, perception of the destination, existing and potential attributes, the destination brand Ptuj could be built on the following values, feelings and benefits:

³ Javni zavod za turizem Ptuj, 2017, Strategija razvoja in trženja turistične destinacije Ptuj 2017–2021

- Discovering and getting to know new, undiscovered things: learning, experiencing, experiencing → Ptuj really has a lot to show; in Ptuj we discover the past, the present and get to know the future. With its diversity and openness, it helps us to scoop life with a big spoon.
- Creativity: the people living here possessed this quality thousands of years ago, and today we can admire it in the form of Ptuj's rich cultural heritage. Ptuj still carries this creativity today, especially through its diverse cultural events and urban culture. Ptuj has always been a city of creative people. Everyone who visits Ptuj feels this creativity and is a little bit "in it" himself. Creativity gives us a sense of freedom, openness to new things and the feeling that we can be exactly what we want to be. We can be creative in a variety of ways - in cooking, in art, in sports, in pampering, or in leisure activities in general.
- The curious discovery of new things, along with a great amount of creativity that Ptuj brings out of us, fills us with a pleasant sense of well-being. When we discover and explore, we connect with others, and this fills us with a sense of joy and lightness. In Ptuj the days are always fully experienced, discreetly harmonious and authentic.

Pillars of tourist experiences

Given the existing perception, it makes sense for Ptuj to base its positioning on the themes of urban and cultural tourism, intangible cultural heritage and rich winemaking traditions of the wider region.

OLD CITY: Ptuj Castle, Ptuj View, Old Town

CULTURE HERITAGE: Roman times, Middle Ages, Lords of Ptuj, museum collections, carnival

CULTURE AND ART: contemporary culture, living and creative culture, music festivals, literature and poetry festivals, other art festivals

WINERY AND CULINARY: Ptuj wine cellars, wine tastings, Salon Sauvignon, Salon Pubec, St. Martin's festival, grape harvest, wine cellars in the city, culinary festivals, delicacies of Slovenian farms, excursions to the Haloze vineyards, tasting local products

WELLNESS, OUTDOOR ACTIVITIES, SPORTS: Ptuj thermal bath, Drava cycling path, Ptuj lake, Turnišče park

Conclusion

The Poetovio Archaeological Park can be connected with other archaeological and historical monuments of Ptuj. It will complement the already existing diverse cultural life and tourist offer of the city

Good landscaping will be the basis for a higher quality of life in Ptuj. It will be an attractive area for education and recreation. A new tourist destination will be created. Various cultural monuments will be included in the comprehensive presentation of Ptuj's heritage, with the Archaeological Park Poetovio being one of the focal points. Modern information and communication technologies will be used for the presentation of cultural heritage. The development of innovative and

sustainable products with a clearly defined cultural content will be enabled. A well-designed archaeological park can attract local investors. The archaeological park provides an opportunity to improve the general attitude towards the archaeological heritage. It will contribute to the strengthening of national, regional and local identity.

7.3 DIGITALIZATION AND INFORMATION-COMMUNICATION TECHNOLOGY ⁴

ICT content carriers enable visitors to become familiar with and interpret the content of the archaeological park. At the same time, they are also the link between the cultural heritage and the space in which it is located. They enable a comprehensive experience of the region, which also includes the rest of the cultural heritage, accommodation and catering offer, shopping facilities, etc. in the broader context of the cultural and tourist destination of Ptuj.

ICT tools can be divided into four groups according to their basic purpose:

- presentation and interpretation,
- information and promotion,
- monitoring and analysis of visitors,
- research and documentation.

Content carriers (suggestions)

1. PRESENTATION AND EXPRESSION

Interpretation panels: are panels that convey the main content of the Archaeological Park. They represent a common thread of the content - each panel focuses on one of the main themes.

⁴ Kusetič, J. in Rudolf S., 2021, Identifikacija orodij IKT in informacijskih sistemov, ki lahko povečajo obisk arheološke dediščine (DS3), Predlogi za Arheološki park Poetovio – lokacija Panorama. Ljubljana.



Figure 40: In certain situations, the panels can also be used as a good alternative to 3D digital reconstructions and archaeostereoscopes. A reconstructed building is drawn on the transparent panel, with its ruins in the background. With a marked stand we achieve that the viewer sees the reconstructed object in its "natural environment" (source: www.carnuntum.at).

Didactic elements or didactic panels: with didactic tools we can enrich the main interpretation panels and in this way highlight more important topics. We also allow visitors to have a more entertaining, in-depth experience in the first person. In this way, they can remember a larger amount of data or better understand and internalize the presented topic. With didactically designed boards, visitors tend to stay longer.



Figure 41: An example of an interpretive panel with didactic elements on the archaeological trail on Hrušica (photo: Jure Kusetič).

Contents: Texts, visuals, didactic and entertaining content, link to audio content (via QR codes or numeric tags), link to video content (via QR codes or numeric tags), link to 3D models (visuals, tactile image).

Exhibitions: Exhibitions are among the more traditional vehicles for content and are usually the park's central point of information and interpretation. Depending on their size and shape, they can be placed directly in the park (small outdoor poster exhibitions) or in alternative places (e.g. in a museum, in a castle), and their appearance, design and appropriate identification (logo) should be associated with Poetovio Archaeological Park at first sight.

Exhibitions can be equipped with didactic content that increases accessibility and understanding of the topic being addressed, and they can be supplemented with other content carriers such as screens, information terminals and holograms. With the latest forms of content such as VR, AR and MR and the technical solutions to display them, space requirements are minimised while enhancing the visitor experience. Using smart device applications, we can design a guide with a virtual guide, offer visitors audio or multimedia guides, and create a variety of entertaining content (solving problems, quizzes, etc.).



Figure 42: Arrangement of a small exhibition in the Archaeological Park Ad Pirum in Hrušica (Photo: NMS Archive).

Copies (replicas) and reconstructions of objects: They can be designed using 3D printing or freehand. Usually, they are made in the natural size of the original (another scale can be used, for example, in the production of sales items or models, which are still among the most expressive tools for the representation of a particular area). Physical 3D models can be true copies of the original (replicas, duplicates), false copies (shots, variants) or reconstructed copies.

QR codes: they are intended mainly for users of portable devices. Using the codes from QR, we can provide access to additional content for visitors to the archaeological park, and they can also be used for advertising. They are a simple and cost-effective solution for transmitting various content (e.g. videos, 3D reconstructions, VR, etc.) that can be changed or updated at any time in the background (the destination, i.e. the URL, must remain the same). The use of QR codes can also avoid oversaturation with texts on the display panels, as in-depth content is only offered to those visitors who are interested in it.

2. INFORMATION AND ADVERTISEMENT

Effective promotion of Archaeological Park Poetovio requires the distribution of strategically carefully designed promotional content across a variety of media to achieve optimal awareness of the park.

Official website: Used to educate, inform, and entertain users, it is also an important component of promoting the Archaeological Park. Information about the park should be clearly organised on the website and already accessible on the introductory page or placed on a special tab dedicated only to basic information.

Social networks: the various social networks are among the most effective (and, above all, free) ways of advertising. For this purpose, it is necessary to create and maintain official profiles of the park (also equipped with basic information about the park) on the main social networks (e.g. Facebook, Twitter, Instagram, etc.) and take care of their maintenance. The communication plan through the social networks must be strategic and followers must be provided with the latest news, attractions and insights into the park (good photos are extremely important).

Own printed media: basic information about Archaeological Park Poetovio must also be provided to the public through own printed media (folders, leaflets and brochures...). They must be equipped with a brief description and good photos, and can also contain basic information about programmes for the public and other offers for visitors. It is important to pay attention to a meaningful and well-organised distribution - they must be distributed in important tourist places in the area, tourist information centres, museums and also organise distribution in other parts of the country and abroad, if possible (e.g. advertising spots in other Slovenian museums).

Information and orientation boards: at the sites of Archaeological Park Poetovio (and within AP Poetovio-Panorama), in addition to the information boards, information boards and directional signs must be installed. The introductory information board serves to introduce the park and provide basic information about it, such as opening hours, price list (if available), contact information, general map, etc. The board should be placed at or in front of the entrance to the park. Signs should also be placed inside the park to guide visitors on a circular or thematic route through the park, to other Archaeological Park sites, to sanitary facilities and other facilities such as the information centre, playground, etc. For the signposts, copies of Roman milestones can be used, for example (3D printing, stone, wood), and the guiding content will be enriched with small, short and entertaining content.

sl. 43



Figure 43: Example of a signboard with entertainment content on the archaeological route on Hrušica. The shape resembles a milestone, and the wooden design is in harmony with the surroundings (photo: Jure Kusetič).

3. MONITORING AND ANALYSIS OF VISITOR

In Archaeological Park Poetovio, we can choose between traditional and modern methods of visitor monitoring. Traditional methods include monitoring, counting and questioning visitors. Monitoring and counting of visitor movements can be carried out using a qualitative or quantitative method. A classic or electronic book of impressions (in an information terminal or application) is also one of the traditional methods of visitor analysis.

When observing and analysing visitors, the following data are usually collected

- their socio-demographic profile - age, gender, origin, level of education, etc,
- their motivation (cultural, tourist, social or recreational) - the data is useful for marketing and communication evaluation,
- their experience - the evaluation of the experience is important to improve the shortcomings of the content in the park,
- their use (effectiveness) of existing ICT tools and the needs/wants for the introduction of new tools,
- their cognitive learning - the key is to understand if the visit helped to increase knowledge and interest in the topic discussed,
- their behaviour during the visit - the information is useful for evaluating the effectiveness of the proposed routes through the park and ICT content carriers.

The first step in analysing the use and users of online services must be the establishment of a quality digital communication space - website, social network profiles, mobile applications, etc. - and only then measuring user responses. There are several ways to monitor and profile visitors to online content:

- website visit analytics based on cookies allow monitoring and creating user profiles and studying users' movements on the website,
- web analytics tools (e.g. Google Analytics) allow us to gain deeper insight.
- application analytics.

4. RESEARCH AND DOCUMENTATION

In recent decades, information and communication technologies have made massive inroads into the field of humanities as well. In an archaeological park, where research is an essential part of the park's work, high-quality ICT tools are crucial. Only with a good set of methodological tools can we research and protect cultural heritage while building a scientific database that forms the basis for creating popular and professional content for the public.

Diverse computer equipment enables the acceleration and improvement of research processes, rapid communication and knowledge transfer. New possibilities for the storage of large amounts of data, their availability and processing are emerging.

The following are the basic tools for research and documentation that can be used in Archaeological Park Poetovio:

- Cataloguing (digital database): storage of all data, from metadata and paradata to cataloguing of archaeological finds.
- GIS tools and databases: we mainly shop spatial data in them, for which we need more sophisticated (GIS, can be also CAD) programmes.
- Cameras - (aerial) photography: is a traditional method of documenting space. We use them for documentation, monitoring, research and protection of cultural heritage.
- Cameras - photogrammetry: photogrammetry can be used to document objects and spaces accurately and qualitatively. 3D models can be used for professional purposes as well as for popular content creation.
- 3D scanning: 3D models can be used for professional purposes as well as for the design of popular content, VR, AR and MR. The scanner can also be used to read the colour of the object, which can create a realistic image. The result is the same as with photogrammetry. However, the scanning is more accurate, and there are also fewer "black areas".
- LiDAR: The aerial laser scanning method has brought a real revolution to the field of archaeological research in the last decade. In aerial laser scanning, we obtain a point cloud from which we create an image of the surface (digital models of the relief) using various filtering and visualisation techniques. Among other things, the method provides very good results in archaeological research. In addition to the detection of surface features and the possibility of scanning large areas, it is also suitable for monitoring the evolution of space.
- Geophysical measurements: is a science that deals with measuring the physical properties of materials below the surface. The results are presented as differences between the measured values, for example, between the surrounding (natural) material (finger, stone...) and archaeological remains (structures, firewood, ceramics...) in the form of an image with measured values - usually with shades or colours. With good measurement values we can recognise typical archaeological forms (e.g. architectural remains).

8 VISION AND GOALS OF THE PARK DEVELOPMENT

Management priorities are set forth in the Archaeological Park Protection Plan (2018), which defines the site as a top category archaeological site, and therefore any intervention must be consistent with heritage protection while addressing the educational, recreational, and design identity needs of the community. The site must be able to be presented to the public.

The park's mission is to preserve cultural heritage, provide public access and engagement, and promote sustainable development by creatively and economically exploiting the park's cultural and tourism potential through effective management and in collaboration with all owners.

The vision of the park is to become a unique archaeological park integrated into the lives of its citizens, providing both local and foreign visitors a place to explore, create and shape their own identities. The high cultural-historical significance of the park and the attractive contents with a diverse offer will provide a unique insight into the rich history of our city.

8.1 STRATEGIC OBJECTIVES OF THE MONUMENT DEVELOPMENT

Qualitative objectives:

- To comprehensively preserve and protect the cultural values of the area and the archaeological landscape through conservation and revitalization.
- Enabling people to get to know and experience the archaeological park and archaeological heritage.
- Connecting the archaeological park with modern life and creation, fostering collaboration and connections with interested public and private partners.
- The archaeological park becomes an important element of cultural tourism.
- The archaeological park becomes a recognisable and unique educational and experiential point with the latest methods of heritage interpretation.
- The archaeological park is a place for understanding and developing an attitude towards cultural heritage.
- Conservation - restoration and presentation (infrastructure) and maintenance works.
- Education, training, information and promotion of cultural heritage.
- Public programmes and tourist use of the monument.
- Research activity.

Quantitative objectives:

- Increase in the number of visitors.
- Expansion of the tourist offer in cooperation with the public tourist office of Ptuj.
- Increase in the number of events.
- Popularisation of the Archaeological Park Poetovio among the professional public and interested laymen.

8.2 STRATEGIC IMPLEMENTATION OBJECTIVES

Management, conservation and protection

- Appointment of a manager and a management structure.
- Appointment of an expert committee to coordinate and supervise the work in accordance with scientific and professional guidelines and current legislation.
- Cleaning, maintenance and conservation of the archaeological park.
- Ensuring the safety of visitors to the archaeological park.

Comprehensive design of the archaeological park

- Preparation of the detailed municipal spatial planning plan (SPPA).
- Preparation of the landscape plan for Panorama.
- Connection of other monuments to the Archaeological Park Poetovio.

Archaeological research

- Planning and carrying out systematic archaeological research.

Development of activities

- Development of research activities.
- Development of tourist activities.
- Development of entrepreneurial activities.
- Organisation of events in cooperation with associations and service providers.
- Development of educational activities.
- Development of recreational activities.

Presentation and interpretation

- Making copies and reconstructions of archaeological findings in the Panorama area.
- Production of souvenirs.
- Creation of a permanent exhibition.
- Prints, picture books for children, guides, brochures...
- Digital presentation.

Increasing visibility and popularization

- Creating a comprehensive cultural tourism offer and linking it with other heritage elements within the archeological monument.
- Promotion of the archeological monument (scientific, cultural, recreational).
- Organization of various activities (educational, cultural, recreational).

- Involvement of local people and their services/products in the presentation program and events.
- Educational campaigns such as management, workshops, presentations.

9 OPERATIONAL GOALS AND PROTECTION MEASURES AND DEVELOPMENT BY AREAS

Operational goals follow long-term goals. Actions are activities that ensure the achievement of both long-term and operational goals.

Goals and measures are organized by area:

- conservation - restoration and presentation and maintenance activities
- public programs and tourist use of the monument and presentation
- research

9.1 CONSERVATION - RESTORATION AND MAINTENANCE WORK

Operational Objectives:

- Protection and preservation of cultural heritage.
- Conservation and restoration of newly discovered archeological objects.
- Maintenance of trails, copies and municipal facilities.
- Enabling people with special needs to visit the park.
- Designing the park as an uncluttered whole.
- Maintained and landscaped parking areas and infrastructure.
- Prevention of vandalism.

MEASURE	RESPONSIBLE	TIME
Preparation of Municipal Detailed Spatial Plan	Mestna občina Ptuj	2023
An invited competition for the creation of a landscaping plan	Mestna občina Ptuj	2024
Creation of a landscaping plan	Mestna občina Ptuj	2025
Landscaping implementation (planting and other)	Mestna občina Ptuj	2026
Park access signage - multiple locations	Mestna občina Ptuj	2023
Connection of Panorama with other arch. monuments in APP	Mestna občina Ptuj	2022
Conservation and restoration of archaeological objects	Mestna občina Ptuj	following the research
Make tactile aids and install them in the park	Mestna občina Ptuj	2026
Mowing, cleaning and minor repairs at all locations	Javne službe Ptuj	permanent

9.2 PUBLIC PROGRAMMES AND TOURIST USE OF THE MONUMENT AND PRESENTATION

Operational objectives:

- Establish an educational programme and activities (management, workshops,...).
- Provide school groups and families with an active, experiential and educational experience using the latest methods of heritage interpretation.
- Presentation of the remains with the help of ICT equipment.
- Liaise and strengthen cooperation with various public and private partners in the preparation and implementation of various popularisation programmes of the park.
- Offer a new tourist product.
- Increase the level of awareness of the park at the local and national level and beyond.
- Establish contact with tourism stakeholders in Slovenia and abroad.
- Increase awareness of the importance of the area and archaeological findings.
- Linking Panorama area with other ancient monuments of the city in the Archaeological Park Poetovio.
- Establishment of an interpretation centre of the Poetovio Archaeological Park as a part of the Ptuj-Ormož Provincial Museum: at the location of the museum or in one of the existing buildings near the Panorama.
- A new permanent archaeological exhibition in the Ptuj-Ormož Regional Museum, which will be organically connected with the Archaeological Park Poetovio.

MEASURE	RESPONSIBLE	TIME
Design, preparation and implementation of quality educational public programs for school groups, families and park visitors	Pokrajinski muzej Ptuj-Ormož	2023
Entering into cooperation with various interested partners in the preparation and implementation of events	Javni zavod za turizem Ptuj	permanent
Active cooperation with the Ptuj Public Tourism Office (preparation and implementation of tourist programs)	Javni zavod za turizem Ptuj	permanent
Placement of copies of monuments and signposts, information tables, execution of a glass billboard with a view of the walls and illustration of the walls and the tower	Mestna občina Ptuj	2022
Presentation of newly explored archaeological objects	Mestna občina Ptuj	following the research
Installation of the apiary and presentation of ancient beekeeping	Pokrajinski muzej Ptuj-Ormož	2022
Presentation of archaeological remains with QR codes	Javne službe Ptuj	2022
Guided tours	Javni zavod za turizem Ptuj	permanent

Placement of a new station to expand the free WiFi network	Mestna občina Ptuj	2023
Supplementing and refurbishing ICT equipment	Mestna občina Ptuj	permanent
Permanent archaeological exhibition in the Regional Museum of Ptuj-Ormož	PMPO	2025
Interpretation center within the Provincial Museum of Ptuj-Ormož	PMPO	2026
Arrangement of a themed children's playground based on the existing plan	Mestna občina Ptuj	2026

9.3 RESEARCH ACTIVITY

Operational objectives:

- Research tasks (field research, analysis of archaeological material, analysis of archival data).
- Educational tasks (acquainting the public with the forms and values of monument preservation, live experience of the past with the remains in situ).
- Inclusion of the panorama in the permanent archaeological exhibition in the Regional Museum Ptuj-Ormož (necessary condition for making the exhibition possible)
- Protection of the archaeological park with the strictest protection regime.

MEASURE	RESPONSIBLE	TIME
Active participation in conferences, scientific meetings, round tables, publications of papers	Various institutions	permanent
Archaeological field work	Inštitut za arheologijo ZRC SAZU, Pokrajinski muzej Ptuj-Ormož	2023 - 2026
Analyzes of archaeological material, archival and non-invasive field research	Inštitut za arheologijo ZRC SAZU, Pokrajinski muzej Ptuj-Ormož	permanent
Guided tours for experts	Pokrajinski muzej Ptuj-Ormož, Inštitut za arheologijo ZRC SAZU	permanent

10 FINANCING

The Municipality of Ptuj, as the owner and administrator, provides budgetary resources for the maintenance of the Panorama archaeological site. The municipality is relatively small and has limited financial resources. It is difficult to ensure the continuity of archaeological research, which is also related to funding. It is also difficult to find private investors.

Therefore, we are looking for possible sources of co-financing for the park:

Opportunities for co-financing of cultural and heritage projects can be found in various programmes co-financed with European funds (ERDF and others):

- Creative Europe
- Erasmus+
- Horizon 2020
- Europe for citizens
- European territorial cooperation (Interreg)
- Transnational Programmes
- Creative Europe
- Mechanism for integrated territorial investments
- Agreements for the development of the region

National funds

- Funds of the Ministry of Culture of the Republic of Slovenia

Funds from local communities

- Funds from the municipal budget

Own funds of individual institutions in the field of culture and cultural heritage.

11 APPENDICES

11.1 APPENDIX 1: ARCHITECTURAL DESIGN AND PLANNING OF ICT EQUIPMENT

Based on the specifications of the conservation plan for the panorama, important archaeological findings will be added to the already existing copies and descriptions, completing and expanding the history of Panorama and testifying to visitors and walkers the great importance of this nearby elevated space. All the actions are aimed at protecting the Panorama as an important cultural monument that must be presented in its "testimonial size".

In the area of the archaeological park that is being created, we propose to put up three more copies of the relief panels dedicated to the Nutrices, following the model of the copies of the monuments already put up. The representation of the fortress tower with its walls will be in the place of the excavated finds. On the information board will be shown a sketch of the appearance of the whole, visually overlapping with the built outline on the ground - completed. In the place that gives the strongest view of the former Roman road on the panorama, a ground signpost made of stones, pebbles and metal inscriptions from the Roman period will be placed and designed.

Arrangement of the place for copies of Roman monuments



Figure 44: Relief panel dedicated to the Nutrices made of marble. Height 60 cm, width 46 cm, thickness 10 cm.



Figure 45: Relief panel dedicated to the Nutrices made of marble. Height 58 cm, width 60 cm, thickness 7 cm.



Figure 46: Relief panel dedicated to the Nutrices made of marble. Height 57 cm, width 43 cm, thickness 10 cm.

Representation of the wall and the tower

The representation should be in the form of a new construction on the surface, which will give the appearance of the former foundations of the walls and the tower. The new construction will not reach the archaeological remains. The walls of the ramparts and tower should be flush with the modern lawn (or only slightly raised). At the edges, the wall should be "lost" in the grass. The edge of the southwest wall of the tower should extend a little into the modern path. The mapped walls should have a similar appearance to the explored old walls. The new construction, located near a former excavation site, should use stones collected during the research in 2020.



Figure 47: Archaeological excavations

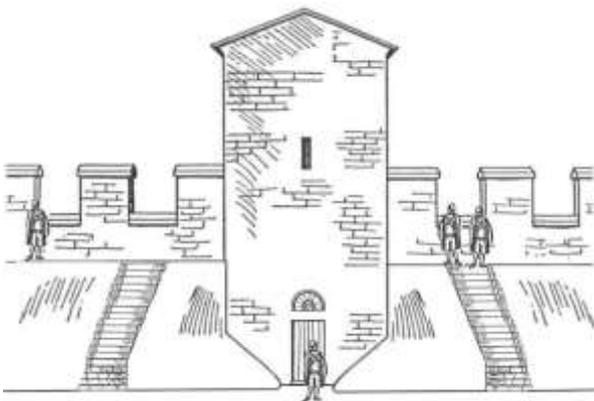


Figure 48: View of the wall tower and its surroundings

Illustration of the walls and the tower with the help of an interpretation board. With the help of a transparent board (e.g. made of plexiglass) a schematic reconstruction of the walls and the tower, whose "ruins" can be seen in the background, is drawn. With a marked stand we achieve that the viewer sees the reconstruction of the building in its natural environment. An example of good practice: AP Carnuntum.



Figure 49: An example of how to display the whole on the newly arranged foundations of the wall tower

Editing of the signpost "Roman routes"

The importance of Poetovio lay in its strategic position at the crossroads of the river. It was located at the crossroads of the Amber Road, which connected the northern Adriatic Sea with the Baltic Sea, as well as the water and land routes along the Drava River. The settlement extended for about 3.5 km along the main road and on both banks of the river.

A signpost embedded in the ground is meant to illustrate the strategic location of Panorama.



Figure 50: Example of placement of a signpost

Figure 51: Example of a signpost

11.2 APPENDIX 2: ARCHAEOLOGICAL PARK POETOVIO - VISION AND GOALS

In the municipality of Ptuj we want to unite the scattered Roman archaeological heritage under one brand, Archaeological Park Poetovio, which includes the following monument building units: Panorama, Roman Lapidarium, Povoden Museum and Orpheus Monument, 1st Mithraeum, 3rd Mithraeum, Roman Oven and Roman Road by the Hospital.

The Archaeological Park Poetovio represents the heritage of ancient Ptuj, the largest Roman settlement in Slovenia, and combines the immovable archaeological heritage of Ptuj into a comprehensive tourist product. The product brand Archaeological Park Poetovio refers primarily to a geographically rounded area with the Roman archaeological finds scattered in the area of Ptuj or in the surrounding area.

The product brand Archaeological Park Poetovio includes content that is related to Ptuj or will be in the future. The content of the brand includes, among others, outdoor visits to archaeological remains, museum exhibitions, guided tours, tourist products and experiences, educational and interactive content, as well as events and exhibitions related to the period of Roman antiquity or scenically located near the archaeological remains from that period. The content of the Archaeological Park Poetovio product brand will be enhanced in the future with new interpretation methods and content, also in conjunction with modern technologies. The focus of the brand will be on the possibility of actively and interactively experiencing Poetovio's Roman past.



Figure 52: Map with locations of the monuments included in the Archaeological Park Poetovio

A vision

- The connection of the archaeological monuments from the area of the Roman city to a unified presentation within the Archaeological Park Poetovio.
- Preservation and protection of the archaeological heritage and landscape.
- Presentation of the archaeological heritage and landscape to the interested public (laymen and experts).
- Integration of the park into educational programmes
- Integration of the park into the cultural life of the city.
- Integration of the park into the tourist offer of the city.
- Maintenance and further development of the park.

Objectives

Establishment of the Archaeological Park Poetovio.

a. Connection of the existing components into a whole:

- Povoden Museum - outer niches of the Church of St. George
- Povoden Museum - city tower
- Orpheus monument
- Ptuj Castle
- Archaeological site Panorama
- City wall with Roman spolia
- Park "Sončni park" with Dominican monastery
- Roman lapidarium in the open air
- Built-in relief (statue) stone lion
- Built-in roman monuments
- Built-in relief of the Nutrizen
- Relief of Eros
- Built-in Roman altar
- Stone lion
- Roman road
- Roman smelting furnace (Rimska ploščad)
- Archaeological site Štuki - Marof
- 3rd Mithraeum
- Roman furnace (Zgornji Breg)
- 1. mithraeum
- Exhibition Pantheon of Poetovio (Salon of Art)
- Exhibition of numerous paintings of Ptuj
- Exhibition of the remains of the 5th Mithraeum (Hotel Mitra)
- Roman legionary fortress of Poetovio

b. The central area of the park is represented by Panorama, which is the largest and most attractive landscape area.

c. Unified management of the monuments:

The management should be transferred to the Regional Museum Ptuj-Ormož, which already manages a large part of the monuments.

d. Creating a financial basis for the existence of the park: financial plan and means

Quality presentation of archaeological monuments in the Archaeological Park Poetovio

a. Regular maintenance of the monuments:

- Regular landscaping.
- Regular conservation works or repairs.

b. Regulate access to the monuments

c. Connectivity between areas of the park - for pedestrians, bicyclists, and motorists:

- Directions for each group separately.
- Possibility of parking.

d. A unified visual image of the information about the archaeological park and individual monuments

e. High quality information, which must be constantly supplemented and renewed:

- Explanatory panels near the monuments.
- Publications (leaflets, guides, other popular texts, etc.).
- Online publications.
- Guide qualities.

f. Continuous dynamics of presentations:

- News, variety, additions...
- Inclusion in the permanent and occasional exhibitions of the Regional Museum Ptuj-Ormož.

g. Addition of new areas to the park - in the medium term:

- Castle Hill - arrangement of archaeological remains for viewing.
- The route of the Roman aqueduct in the Grajena Valley - establishment of a hiking trail.

h. Major urgent works on existing monuments - medium term:

- Orpheus Monument: making a copy and moving the original to a covered display area.
- City Tower: making copies of all built-in monuments, relocating the originals to a covered exhibition space, erecting copies in the City Tower.
- Castle Hill: restoration of the archaeological remains.
- Archaeological site Panorama: comprehensive landscaping, archaeological research according to the presentation plan (2021), immediately followed by the conservation and presentation of the objects.
- Route of the Roman aqueduct through the Grajena Valley: creation of a walking trail.

i. "Interpretation Centre":

- Presentations of the park within the Regional Museum Ptuj-Ormož: at the site of the permanent exhibition or at another location.

Placement of the park in educational programs, cultural life and tourist offer

- Importance for educational programs.
- Significance for the cultural life of the city.
- Significance for the tourist offer.

Secondary connections

- Importance for the economy.
- Significance for the recreational...

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